Established 1835.

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, And Engineering Progress.

[*The* MINING JOURNAL *is Registered at the General Post Office as a Newspaper and for Transmission Abroad.*]

No. 3082.—VOL. LXIV. LONDON, SATURDAY, SEPTEMBER 15, 1894. PRICE ..... SIXPENCE. BY POST, £1 4s. PER ANNUM.

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CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

**** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Coal, September 18 (*Workington*).—For supplying and delivering at the London and North Western Railway Station, Workington, about 6000 tons of gas coal for the gas committee. Tenders to Mr. John Warwick, Town Clerk, Town Hall, Workington.

Reservoir, September 22 (*Cromer, Norfolk*).—For the construction and completion of a reservoir capable of containing 605,000 gallons, together with the necessary rising main, service pipe, washout and overflow pipes, valves, indicator, and other works in connection therewith, upon certain land within the parish of Cromer, together with the maintenance thereof for six calendar months after completion, for the Cromer Waterworks Company (Limited). Specifications with bill of quantities and schedule of prices, together with form of tender, may be obtained, and plans inspected, at the office of the engineer, Mr. J. C. Mellias, M.I.C.E., 232, Gresham House, London, E.C.

Coal, September 24 (*London*).—Tenders for supply of coke, required for the Cape Government Railways for the year 1895, will be received by the Agent-General for the Cape of Good Hope, 112, Victoria Street, S.W. Forms of tender and conditions can be obtained from the Agent-General's Office.

Underframes, September 26 (*London, E.C.*)—For the supply and delivery of steel underframes, &c., for carriages, and drawbar volute springs, &c., for the East Indian Railway Company, as per specifications and drawings to be seen at the Company's Offices. Tenders are to be sent to Mr. A. P. Dunstan, secretary, Nicholas Lane, London, E.C.

Pipes, September 29 (*Ramsgate*).—For the supply of 300 cast iron socket and spigot pipes, 12 feet 4½ inches long and 12 inches in diameter; 200 cast iron socket and spigot pipes, 9 inches in diameter; together with sundry special castings for the committee. Tenders to be sent in by 29th inst., addressed to the Chairman of the Gas and Water Committee, and endorsed "Tender for Pipes."

Sinking Shafts (*Ilkeston*).—For sinking a 15 feet shaft. Apply for particulars to the Manager, West Hallam Colliery Company, Ilkeston.

Sinking Shaft (*Ossett*).—For sinking shaft to the top and low Haigh Moor seams. Tenders to Victoria Mills, Ossett, Yorks.

Steam Boilers (*Wakefield*).—Tenders required by Messrs. McPhail and Simpsons, engineers, for the supply of seven steam boilers Lancashire type, Applications to Messrs. McPhail and Simpsons, Calder Works, Wakefield.

Railway (*London*).—For the construction of a short line of railway on the outskirts of London, including the supply of all materials. Lithographed plan and sections and specification will be supplied on written application to Mr. R. F. Anderson, A.M.I.C.E., Ryde, Isle of Wight, on payment of £2 10s., which will be returned to all except the successful contractor.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

16365 William Wilson Barnes, Melbourne House, Harrington, Cumberland.—Improvements in props and frameworks for mines and quarries.—August 28.

16371 Gathorne North Brearley and Admiral Brearley, 2, Market Street, Bradford.—Improvements in or appertaining to Corliss valves for steam and other fluid-pressure engines.—August 28.

16377 William Thompson Leyshon, 8, Livery Street, Birmingham.—Improvements in or additions to machinery for the coating of metals.—August 28.

16393 Joseph Pollit and Eustace Wigzell, Billiter House, Billiter Street, London.—Improvements in the construction of Corliss valves and trip gear for steam engines.—August 28.

16393 Ryerson Dudley Gates, 45, Southampton Buildings, Chancery Lane, London.—Improvements in rock and ore breakers.—August 28.

16426 Gijsbrecht Hendrik Johan van Amstel, 11, Southampton Buildings, Chancery Lane, London.—Improvements in governing apparatus for screw propeller engines.—August 28.

16427 Robert William Taynton, Denmark House, Richmond, Surrey.—Improvements in coupling for boring rods and similar purposes.—August 28.

16444 Benjamin Ottley Moore, 24, Bonn Street, Toller Lane, Bradford.—Improvements in the bearings of shafts.—August 29.

16454 Richard Michael Otto Tillmann, 10, Friedrichstrasse, Berlin.—Wedge-shaped shut off valve.—August 29.

16493 Joseph Southall, Woodleigh, Selborne Road, Worcester.—Improvements in motor engines.—August 29.

16450 Charles Andrew Terrey, 22, Southampton Buildings, London.—Improvements in apparatus for firing mines electrically.—August 30.

16545 Nells Jörgen Poulsen, Monument Chambers, King William Street, London.—Improvements in valves for steam engines.—August 30.

16557 William Phillips Thompson, 6, Lord Street, Liverpool.—Improvements in the manufacture of metal ingots.—August 30.

16574 Edgar Coniston Mills, 42, Victoria Buildings, Manchester.—Improvements in furnace tubes and flue tubes for boilers.—August 30.

16583 George Spencer Waterfall and Charles Henry Woods, Bank Buildings, George Street, Sheffield.—Improvements in and relating to miners' boring machines.—August 31.

SPECIFICATIONS PUBLISHED.

15,907, Dymond (Laird), furnaces, &c., 1893; 17,982, Schneider and Alder, steam boilers, 1893; 18,518, Mackay, packing devices for engines and pumps, 1893; 18,713, Skilling, boring coal, stone, &c, 1893; 19,135, Brown, treating ores of precious metals, 1893; 19,359, Williams, bending metal strip, 1893; 12,380, Davis, steam boiler, 1894; 13,194, De Laval, pumping engines, 1894; 13,362, Galloway, boilers, 1894.

The above specifications published may be had of Messrs. Rayner and Company, 37, Chancery Lane, London, at 10d. each including postage.

OUR INQUIRY COLUMN.

TO CORRESPONDENTS.

Correspondents will please take note that all communications will in future be answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

REPLIES.

AURIFEROUS.—The information is cabled weekly.

NON-PLUSSED.—(1.) You can do no harm in purchasing a small quantity.—(2.) We have really little faith in this at present.—(3.) The future looks promising.—(4.) This appears a good company.—(5.) We know very little of this.—(6.) At present very promising.

J. K.—He should put the facts of the case before a solicitor.

ANXIOUS.—The financial position of the company is, we believe fairly strong.

J. D.—The company hope to commence crushing in November.

AT a sitting of the Chamber of Deputies at Valparaiso on the 17th July it voted for the Exhibition of Mining and Metallurgy, to be opened in Santiago, $228,591, and it also granted to the exhibition the entrance fees, which are estimated to reach $30,000. These sums are in addition to $150,000 previously granted. In connection with the exhibition a Miners' Congress was to be held, and the show, taken altogether, promised to be a great success.

MINING in the Kootenay country, British Columbia, will soon be in operation on a grand scale, says the *Industrial World*, Chicago. The Kootenay Mining and Smelting Company, with a paid up capital of $2,250,000 has erected at Pilot Bay seven buildings, and has three more under way. The plant will accommodate four stacks of 100 tons capacity each. One of these stacks, it is expected, will be in operation before October 1 for the reduction of silver ore. The three other stacks will be added as fast as the district develops, and will treat lead and copper ores. The works will also include a 300 ton sampling plant, a 200 ton concentrator, a refinery, and a laboratory. Works, it is said, will also be established for the manufacture of lead pipe, sheet lead, white lead, and other products. These extensive works, it is anticipated, will create a demand for the medium grade ores at Kootenay that are now unsaleable.

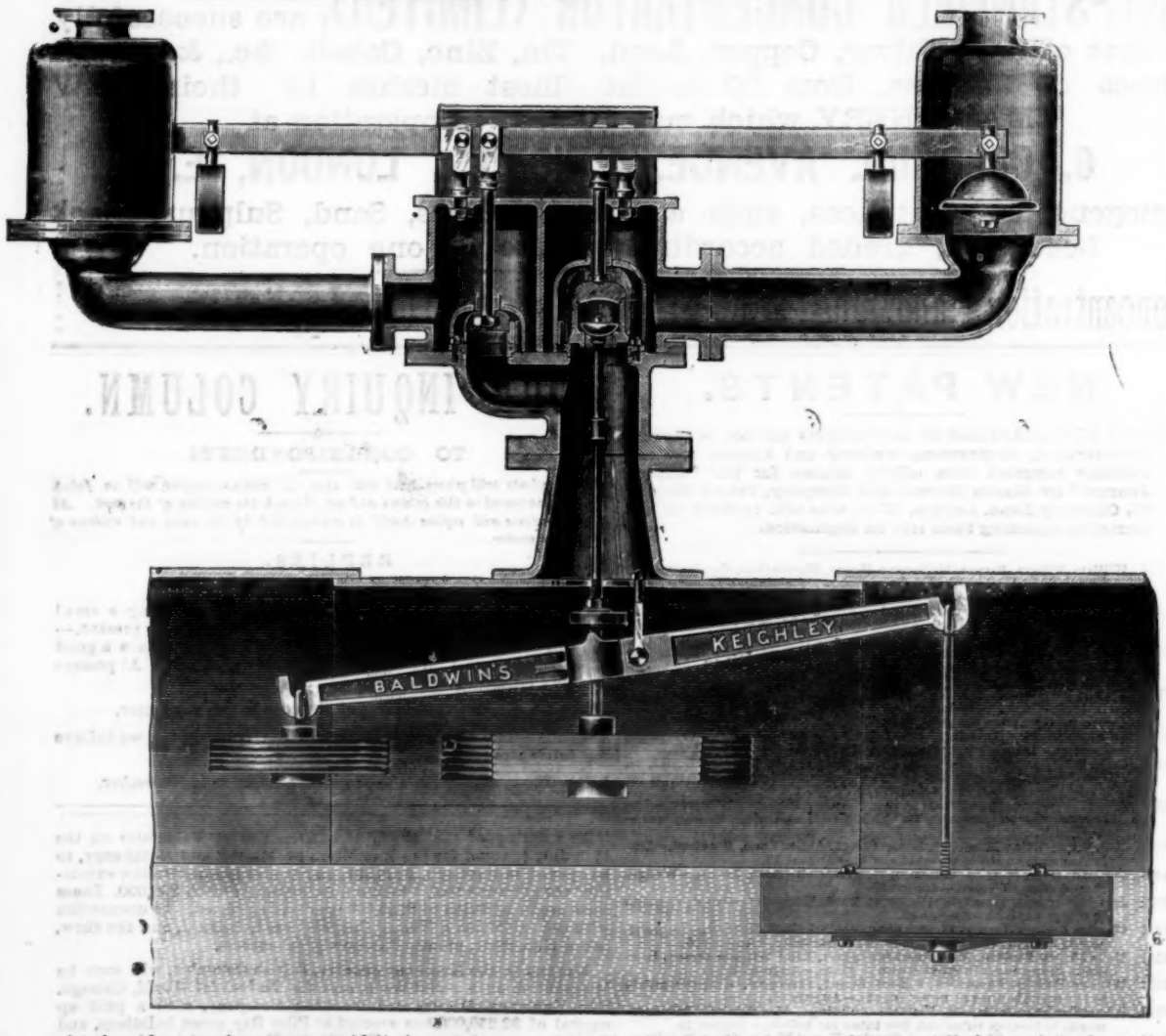
MECHANICAL ENGINEERING:

MACHINERY, MINING and RAILWAY PLANT, &c.

Illustrated Descriptions of New and Standard Mechanical Appliances, Accessories and Processes, adapted to Mining, Metallurgical, Railway, Engineering and other Industrial Purposes.

A NEW PATENT PERFECT SAFETY VALVE.

THE principal object of this invention is to gain a much more rapid and sensitive discharge of steam over the safety valves now in use, and at the present and coming high working pressures, and in it the escaping steam is utilised to assist the valves to give a more rapid discharge of steam at the over-pressure in the boiler. It is claimed that it is impossible to get the pressure of steam in the boiler much above the blowing-off point or pressure, as in the case of all other safety valves now in use, and especially so in any case of emergency, such as a sudden stoppage of the engine, &c.



The safety valve is designed in such a manner that it answers the present purpose of two safety valves—namely, high steam and low water (combined) and a separate high steam dead weight or lever safety valve, thus doing away entirely with the extra block rivetting on boiler, and a separate safety valve for same. In Baldwin's (Devonshire Brass Works, Keighley), Patent Safety Valve three valves are combined in one, and on one base—namely, high steam and low water (combined) and separate high steam valves. The high steam and low water valves are respectively a 4 inch and a 2 inch valve, the separate high steam valve being a 3 inch valve. The valves are placed under one cover, with a partition running between and separating the high steam and low water (combined) and the high steam valves. It will be seen by referring to the engraving that the lever and weight on the high steam valve is carried forward over the discharge pipe of the high steam and low water valve (combined), and the lever and weight of the high steam and low water valve (combined) is carried forward over the discharge pipe of the high steam valve, which are opposite each other.

The engraving we are able to publish shows the valve to be part in section and elevation; the part in section shows the lever and weight of the high steam valve to be over the discharge pipe of the high steam and low water valve (combined). The escaping steam plays against the weight on the lever which is placed inside the cover shown, and discharges into the atmosphere, and likewise the high steam valve discharges against the weight or lever (inside the cover) of the high steam and low water valve (combined). Thus the valves assist each other to discharge the over-pressure of steam much more rapidly, preventing a large accumulation of over-pressure, as in the case of all safety valves now in use. In case of lowness of water, the high pressure valves are assisted to blow, which will at once draw the stoker's attention. This is especially applicable in a stack of boilers.

MINING NOTES FROM JOHANNESBURG.

By H. BUSH, M.E.

Wolhuter.

The ore reserves are nearly 100,000 tons ahead of present requirements, and average 10 dwts. free gold, leaving about 6 dwts. in tailings. The reefs look promising. The Rain reef, about 4 feet wide, gives an assay of about 16 dwts. When the new plant is running, profits will be equal to £5000 monthly.

Jumpers.

The lower levels are opening up well. The broken ground has now been passed through, and everything looks exceedingly well.

New Chimes.

Mine looking exceedingly well, and will shortly show large increase in outputs.

Alexandra Estate.

Prospects much brighter, and a move may be expected in this property at an early date.

Champ d'Or.

This property still shows improvement upon improvement, and the output will be maintained without any exertion.

Champ d'Or Deep.

When mill starts running the returns will be quite up to expectation; the development is so far ahead that profits will be very large.

CAPTAIN BEGELHOLE, the late manager of Bayley's Reward claim, at Coolgardie, has stated in an interview that the progress made at Coolgardie, Kurnalpi, and the outlying fields is astounding. All the townships have wonderfully improved. At Kurnalpi the diggers held 15,000 ounces of gold, half of which was alluvial and the other half dollied from rich leaders. There was no bank on the field, and the gold could only be sent away to Coolgardie as opportunity offered. Two prospectors came in from a new rush three miles out the day he left, bringing in between 50 ounces and 60 ounces each. Some of the lines of reef there could be traced for three miles, and one of them, the Success Prospecting Association and the New Prince Company, had a solid reef 5 feet in width of beautiful laminated stone, some of which had given as high as 40 ounces to the ton, with a general average of 4 ounces. This is a new venture, and recently floated in Melbourne, of which Mr. J. S. Layton is the manager. At the White Feather all that was wanted was machinery to develop the numerous lodes there. As an instance of how perfunctory prospecting was done, his party camped for the night near the I O U rush, and just before dark Mr. Begelhole picked up 6 dwts. of gold in an hour. AT Coolgardie, Bayley's Reward was opening up splendidly at the lower level, and when the shaft was deep enough they would have water for 20 head of stamps. He saw the Londonderry Mine, and from a hole 6 feet wide by 5 feet deep the enormous nuggets were taken. The gold was in the centre of the stone, which was the full width of the hole. There were over 1000 ounces of gold left in the pieces of quartz broken from the sides of the very rich block, and at each end of the hole veins of gold ran down to the botton ½ inch in width. He offered £30,000 cash, and 20,000 paid up shares for the mine, on condition that a clear title could be given, but the offer was not entertained. Along the McCulloch Coolgardie line a large amount of work had been done, and the appearances from Bayley's on the south were of a favourable character.

ADVICES from Chile say that in Coquimbo the gold fever continues developing in an enthusiastic manner. Andacallo is not the only place at which gold has been struck, but at Cruzde Caras also, where the range is in a virgin State. In many parts of the province of Anond gold has also been struck. A man named Arana recently obtained, with 15 men in that number of days, $8000 worth of the yellow metal. The gold is said to be very fine, and the indications are that it exists in great quantities. A rush has set in from all parts in consequence.

SOME time ago Mr. A. W. Kirby purchased the whole of the tailings from the Mount Morgan Gold Mining Company for the purpose of subjecting them to a rigorous treatment in order to extract the gold which it is supposed remains (says the Sydney *Bulletin*). That the precious metal does exist in these tailings in greater or less quantity has been asserted for years past, and these statements are about to be tested in real earnest. To carry out this work Mr. Kirby has selected an area of ground at Shepherd's Creek, on the Dee River, about 2 miles from the township, and the necessary appliances are now being erected. Mr. Cheetham, who is well known in Rockhampton, has the management of the affair.

COLORADO'S GOLD RESOURCES.

A mineral belt 280 miles long, 150 miles wide.—Unequalled in lavishness of mineral wealth.—19 gold producing counties—Diversity and extent of their yields.

FROM 1859, when gold mining in Colorado first began, to 1893, is a long interval, yet it is not too much to say that even at this late date the extent and distribution of the gold resources of Colorado are not easy to determine. The great chain of the main divide traverses the State from north to south, a distance of 280 miles. For this entire length these mountains contain deposits of the precious metals. The width of the existing mining belt is greatest in the south, where it extends for 150 miles from east to west. The immense territory included within these limits covers a portion of the earth's exterior which for lavishness of mineral wealth is almost unequalled.

The Archaean granite and gneiss of the front range inclose the familiar vein structures of Boulder, Gilpin, and Clear Creek counties. To the west and south west there are the extensive bodies of later eruptive rocks, which of recent years have been found to be important depositories of the precious metals. In this area are the silver mines of Creede, the gold and silver lodes of Lake City, Marshall Basin, Red Mountain, and Ouray, and also the gold veins of newly-discovered Cripple Creek, Hartsel, Balfour, &c. Further west, toward the centre of the State and extending southward, is the sweeping horseshoe curve of the carboniferous limestone series which holds the treasures of Leadville, Battle Mountain, and Aspen, together with several patches further south, the most important of which is that at Rico. Of these mining districts in the limestone, Aspen is at present the only one which does not produce a notable portion of gold. To generalise upon the geological distribution of the gold ores of Colorado would be dangerous, for modern experience has shown the miner one fact above all others—that gold is confined to the rocks of no one age or formation. In Colorado, gold ores are found alike in the granite foundations which uphold the hills, and in the eocene lava flows which cap the mountains, while there is an unending diversity of lode types, from the best defined, clear-cut, almost vertical fissures to the most irregular, ill-defined, almost horizontal bedded deposits.

Chief Producing Counties.

A reference to statistics shows that out of the $5,539,021 of gold credited to Colorado in 1892, the following counties were the chief contributors: Gilpin, $1,419,409; Boulder, $1,027,320; San Miguel, $725,484; El Paso, $583,010; Clear Creek, $328,205; Lake, $262,629; scattered, $1,192,964. It is generally considered that the figures for 1892 as given by the director of the mint are too high, and that instead of $5,539,021, the total was under rather than over $5,000,000. During 1893 there was a marked increase in the production. The total yield is estimated at from $7,250,000 to $7,500,000. All the gold mining districts exhibit an increase. El Paso county, because of Cripple Creek, produced nearly $2,000,000. Lake county, owing to new discoveries on Breece Hill, Leadville, nearly trebled its gold output; while San Miguel showed a noteworthy and Gilpin a slight advance. The gold output of Boulder and Clear Creek counties suffered through the partial suspension of work at mines which produce gold in combination with silver-bearing ores. Therefore, notwithstanding the stimulus given to the production of the gold mining parts of these counties, more particularly in the last quarter of the year, their output exhibits no such increase as would otherwise be expected. The same is true of the various parts of the San Juan region, whose output is counted under the heading "scattered," for at Red Mountain, Rico, Ouray, Silverton and other districts, much of the gold comes from silver-bearing ores. The gold output, therefore, suffered by the inactivity of many of the largest mines during the few months following the collapse in silver. At the present moment, however, matters are adjusting themselves, and mines which are essentially gold producing are being re-opened and developed to such an extent as to much more than offset the diminished gold product from silver-bearing ores.

First Discoveries.

The first gold vein discovered in Colorado was the Gregory, at Black Hawk (May 1859) in Gilpin county, which has from the beginning been the leading gold mining section of the State, and although often considered "worked out," it is to-day as prosperous and productive as at any time since 1860. The deepest mines of the State are in this district, the California shaft having attained 2290 feet on the lode and 2040 feet in vertical depth. The characteristic lodes, of Gilpin are fissure veins in granitoid gneiss. Though the ores carry a large percentage of pyrites, they are successfully treated by the 525 stamps in the mills around Black Hawk. Low freights enable the miners to benefit by the cheap rates offered by the Denver smelters, so that there are large shipments of concentrates from the mills and of hand-picked high-grade ores from the mines. The yield for 1893 was probably larger than that of 1892, which was previously the best on record. At the present time several of the most important and formerly most productive mines, such as the Gunnel, California, Prize, &c., are, owing to different causes, idle. Their temporary inactivity has, however, been more than offset by the younger producers, such as are yet in the windlass and whim stage of mining. This speaks well for the continued prosperity of the region, and in the same connection it is well to draw attention to the fact that during the past year the known productive area has been extended outside the old ground around Black Hawk, Central City, and Nevadaville by the discoveries which have been made at Yankee Hill, Pine Creek and Elk Park.

A belt of the basement rocks of Colorado—granite and gneiss—stretches through Boulder, Gilpin, and Clear Creek counties, and the similarity of the rock formation was the immediate cause of their early development. Though the gold belt of Gilpin passes through Boulder and contains certain veins, such as those of Copper Rock, which have the characteristics of these found in the pioneer county, yet on the whole Boulder county has a lode structure and mineral association which distinguishes it from any other district in Colorado, or indeed in the United States. Boulder is to the Rockies what Transylvania is to the Carpathians. It is the region of telluride ores of great variety and complexity. The mines are not so large or so deep as those of Gilpin, because the veins which they contain are smaller and richer. The output is a steady one, the yield for 1893 showing no marked difference from that of the previous year. The silver production of this district at present is one-quarter of the gold yield, but the proportion will continue to diminish during the next few years, because the prospecting being done at the present time is entirely directed to the search for gold veins. An impetus has in this way been given to exploratory work in the Ward, Jamestown, Sunshine, Magnolia, and other well-known portions of the county, which will make its effect apparent in the yield for 1894.

Among Silver Veins.

On the other side of the Gilpin is Clear Creek county, the most important producer of silver before Leadville and the San Juan were known. The gold output of this county for 1892 was about one-seventh its silver production, but during the past year the yield of the white metal has seriously diminished, while that from the gold mines has increased. In 1894 the same tendency will become more marked. The rock formation of the mountains encircling Empire, Georgetown, Silver Plume, and Idaho Springs is almost identical in character with that of Gilpin. The granitoid gneiss is seamed in more than one direction by systems of fissures of varying sizes and mineral contents. In the western part of the county they are mostly silver and lead bearing; in the north-eastern, bordering upon Gilpin, they are mainly gold bearing. There are, it is true, some mines near Georgetown which contribute to the gold output, but such output is mainly incidental to the working of silver ores, most of the gold of the county coming from the hill slopes surrounding Idaho Springs, and from the mountains above Empire. The bold outcrops of the lodes often appear above the granite surface. In the early days the soft and weathered portions of many of these croppings were treated as placer material, and were washed in sluices. But now they suggest the beginnings of low grade gold milling propositions which merit careful examination and intelligent exploration.

In 1892 Lake county produced $250,000 in gold and $7,750,000 in silver. During 1893 the gold output was nearly trebled, while the silver yield largely diminished. In 1894 it is likely that the value of the gold produced will exceed that of silver. It was gold placer mining which caused the beginning of the development of Leadville, and after the fall in silver its miners woke up to the fact that the district still had gold resources, and attention was again directed to them. During the last three months of 1893 the rapid opening of the gold deposits of Ball Mountain and Breece Hill led to a production of 510 tons of ore per day, carrying an equal number of ounces of gold, equivalent to an annual output of no less than $3,000,000. There is no doubt that the rich placers formerly worked in Evans and California gulches were fed by the degradation of the lodes which are now being exploited in the Little Johnny, Lilian, Antioch and neighbouring mines. This same gold bearing belt extends across the range (the Park or Mosquito) and enriches the gravel deposits of Alma and Fairplay on the eastern slope.

The geological formation of Breece Hill and its vicinity is not unlike that of the main silver producing belt of Leadville, the gold being in most cases found in the limestone between bodies of porphyry. Sometimes, as at the Antioch, the dykes of porphyry which cut through the limestone series are themselves sufficiently gold bearing to be economically valuable. These conditions of ore occurrence are familiar to the Leadville mining engineer, and the experience which he has obtained on Iron Hill, Carbonate Hill and other portions of the silver producing area will be of great assistance in systematically developing this formerly neglected portion of the district.

In the Saguache Range.

Across the valley of the Arkansas the granite formation of the Saguache range is seamed with many gold veins. On the steep slopes of the mountains near Twin Lakes have been found small bodies of ore of remarkable richness. In the valleys below are placers of known value, and on the hillslopes opposite, behind Granite, many gold lodes are known to exist. There is ample room and plenty of evidence for the discovery in this wide territory of further important depositories of gold ore.

El Paso county made a gold output of $2000 in 1891; in 1892 it was $583,010, and in 1893 it is estimated to have reached $2,000,000. This increase is due entirely to the mines of Cripple Creek, at the back of Pike's Peak. To-day the new camp has a productive area of over 20 square miles, a population of 8000, and a production of gold which is at the rate of $4,000,000 per annum. One of the most remarkable features of the new camp is the rapid extension of the known gold bearing area; and though the geological formation is in respects unfamiliar to the miner from Leadville or Gilpin, yet, as it is becoming better understood, the work of development is proving the existence of well-defined lode channels traversing the later igneous rocks which lie upon and against the basal granite. Few mining districts afford so many varied types of vein structure. Nor is the mineralogical composition of the ore itself less diversified. That diversity has been a stumbling block in the way of successful milling; but as the preliminary blunders incidental to most new districts have now been made, there is reason to expect that the question of the ore treatment will be placed upon a sound and secure basis.

Cripple Creek has already brought "second Cripple Creek" into existence. The miner who has prospected in the new camp has remembered a similar formation elsewhere, and active search for gold ores in other parts of the great masses of igneous rocks in this section of Colorado had led to the finding of other deposits at Hartsel, Howbert, Balfour, and other localities in the adjoining portions of Park county.

In the South-West.

San Miguel is part of the great south-western mining region of Colorado. In 1891 its gold production was $670,602; in 1892 $725,484. During 1893 there was a notable increase in the yield, traceable in part to the larger output of the Consolidated Smuggler-Union-Sheridan-Mendota Mines at Marshall Basin. These, forming probably the largest mining property now under one management in the State, yield nearly $400,000 in gold and 500,000 ounces in silver. The Cimarron Mine has been producing very steadily, and the erection of a 120 stamp mill by the San Miguel Consolidated Gold Mining Company has been one of the noteworthy events of the year. The gravel deposits of the San Miguel River, which in times past have been very extensively worked, now yield only an insignificant part of the gold production. Their place has been more than filled by the development of the strong and continuous veins traversing the enormous bodies of andesitic breccia which characterise the geology of this county. How successful vein mining under these conditions can be made has been illustrated by the exploitation of the Smuggler-Union lode, which has been worked continuously for over a mile in length and for a vertical depth exceeding 1000 feet. This part of Colorado offers a fair field for large mining enterprises of a sound description.

In the foregoing paragraphs brief reference has been made to six counties out of the 19 which in 1892 contributed to the gold yield of the State, but Pitkin, which holds the Aspen district, was the only county which in that year produced silver alone. Among the counties which have been particularised there occur notable gold deposits which are destined to increased productiveness. The "Silvery San Juan," embracing Ouray, San Juan, San Miguel, Dolores, and La Plata Counties, is a mining territory whose diversified topographical and geological structure is identified with depositories of gold ores having a variety far beyond the attempt at any generalisation.—T. A. RICKARD in "The Mineral Industry," Vol. II., p. 325.

NITRATE OF SODA.—11th September.—Mr. Thomson Aikman, jun., states:—Nitrate of Soda—Since report of 27th ultimo the cargoes then waiting off coast were destined: *Pacifique* to Hamburg, and *J. W. Wendt* to Antwerp. The fortnight's arrivals for Europe reach about 48,000 tons, of which about 14,000 tons called for orders. At the beginning of the fortnight two large off-coast cargoes were reported at 8s. 10½d., and a large due cargo at 9s. per cwt., and since then two small June sailing cargoes were reported at 9s. to 9s. 0¾d., while large cargoes have offered at 9s. In distant positions business in several cargoes, September to October, and October to November shipment, has been reported at the equivalent of about 9s. 3d., closing quiet but firm. In refined quality, up to 9s. 4½d., has been paid for near, and large cargoes of July and September sailings are reported at the equivalent of about 9s. 3¾d. per cwt. Cable quotations are: Cost 6s. 4½d. to 6s. 6d. per quintal for near loading: exchange 11¼d. and freights steady at 23s. 9d. to 25s. per ton with about 44,000 tons register disengaged spot tonnage. The actual sailings in August are advised as 61,000 tons to Europe, and 14,000 tons to the United States, with 77,000 and 6000 tons respectively loading. The deliveries in Europe for August reach about 37,000 tons against 49,000 last year; stocks on 31st August were about 28,000 tons against 76,000 tons; and afloat about 252,000 against 150,000 tons at the same date last year.—Sulphate of ammonia. The market continues quiet, and slightly lower prices have been accepted, £13 10s. per ton being about the value at close. The value of beet sugar is slightly firmer at from 12s. 3d. to 10s. 10½d. per cwt. for spot to winter delivery. There has been less rainfall during the fortnight, but the weather generally has continued unsatisfactory. Easterly winds have prevailed.

A FIND of great value is reported in the Last Chance Mine, a portion of the Mainland Consolidated Group, about four miles from the Golconda, and now under option to the West Australian Exploring and Finance Corporation. It is said to be richer than anything found at Coolgardie.

THE SHAW GAS TESTER

For Detecting the Presence and Percentage of Fire Damp and Choke Damp in Coal Mines, &c.*

By JOSEPH R. WILSON, of Philadelphia, U.S.A.
Member of the American Institute of Mining Engineers, &c.

DURING the last 70 years numerous experiments have been made in devices for the detection of the presence and percentage of explosive gas in coal mines, commencing with the Davy lamp, which in principle and construction sufficiently resembles the safety-lamps of to-day to be correctly regarded as the prototype, whose individuality is distinctly impressed upon all subsequent inventions of this character, and whose fundamental principle has never been departed from. While it is recorded that the Davy lamp was invented simply as a safeguard against igniting light carburetted hydrogen in the mines, it is well known that it has always been used as a means of detecting the presence of low percentages of fire damp, which it is able to do if 2½ per cent. or more is present, while, though it will not detect less than 2½ per cent. of fire damp under any circumstances, it is the most sensitive lamp in existence, outside of the alcohol and the hydrogen lamps. It is necessary to commence the paper with a sketch of the history of the art, in order to show that the inventor of the Shaw gas tester must have shut his eyes entirely to any and every existing device for detecting and measuring gases, his invention not being antedated by anything of a like character.

This instrument is a mechanical device that can be used by the unskilled for the rapid estimation of the amount of fire damp and choke damp in the air of coal mines. The results obtained being absolutely accurate to the 0·001 part. Within a minute it will show whether the air returns are carrying 0·1 per cent. or 100 per cent. of fire damp. The latter per cent. is only mentioned in order to illustrate the compass of the instrument. It will show the amount of choke damp or carbonic acid gas in every air return, from the permissible amount for health to pure gas. It will show the amount of white damp or carbonic oxide in the air when a mine is on fire, or under any other conditions. It will test the sensitiveness of every form of safety lamp and gas detector, and indicate the true value of each and every device of this character, without any guesswork. It will indicate the effect of noxious gases on animal life, and by practical experiment determine just how much CO_2, CO, H_2S, or any other noxious gas can be breathed with safety, which determinations are invaluable to the mining world. In short, it is for gases what scales and weights are to solids, and almost as easy to operate.

Briefly, the apparatus is made of brass and iron, is about 2 feet square, and weighs 90 lbs. It consists of a pair of pumps. One takes in air, the other takes in pure gas as a base to measure from. The air cylinder is stationary, and the stroke of the piston is always constant. The gas cylinder is movable, and can be set between the two graduated bars so that it will pump 1, 2, 3, 5, or any desired percentage of gas in conjunction with air from the air cylinder, the sum of the two always equalling 100 parts, so that if 2 per cent. of gas is taken in the gas cylinder, 98 per cent. of air would be taken in the air cylinder; and if 20 per cent. of gas, there would be 80 per cent. of air, and so on, the calculation on the graduated beam on which the gas cylinder operates having been made in a curve, so that the sum of the two cylinders shall always equal 100 parts, instead of 100 of air and 2 of gas, or 100 of air and 10 of gas, the product is 98 per cent. of air and 2 of gas, and 90 of air and 10 of gas. The pistons are operated by a hand crank acting on the graduated arm or lever that regulates the stroke of the piston in the gas cylinder, and the product of the two cylinders is pumped through an ejector or mixer into an igniting chamber, which has an aperture on one side in front of a gas jet. Should the mixture pumped into the chamber be ignitible, ignition will take place, and the expansion caused by the heat will propel a loose piston head, held in place by a bowstring, at the end of the chamber against a gong, producing an audible sound. The addition or subtraction of 0·1 per cent. will cause this gong to ring or remain silent; in other words, Mr. Shaw has invented an apparatus for determining the igniting line of gases which lies within the narrow limits of the 0·001 part, and which is as fine as the line between oil and water in a test tube. The test for ignitible gas is made on this base, the igniting line. Natural gas will give a standard from 4 to 6 per cent., while manufactured gas may be anywhere from 7 to 9 per cent. This difference does not alter condition of test, as the igniting line can be ascertained whether it be at 4 or 9 per cent. The air in the mines to be tested is captured by means of a diaphragm hand-pump and a 6 gallon rubber bag. The diaphragm pump is light and easily handled. The vibration of the diaphragm throws about one pint of air each stroke. The air is drawn in a tube ½ inch in diameter, and forced into the bag. When filled the bag is held by the hand, in close contact with the neck, and pulled off the pump, and an ordinary paraffined cork inserted to retain the captured air. Small paper tags are attached to note the time of day and place where the air was captured, and the bags brought either outside or to the foot of the intake, where they are attached to the instrument, and the contents made known. To test for fire-damp, a bag of pure carburetted hydrogen, captured from a blower in the mine, is used as a standard, or in the absence of this ordinary illuminating gas. For instance, 6 per cent. of the gas will ignite, 5·9 per cent. will not, 6 per cent. is then the standard line to measure from. The process of testing a bag of gas captured in the mine is very simple. Attach it to the air-cylinder of the instrument, then pump a stroke of the air from the mine, and 6 per cent. of carburetted hydrogen into the igniting chamber. If there be any fire damp in the air from the mine, it will manifest itself at once by producing a louder detonation than that caused by the 6 per cent. of fire damp alone, or if there be a high percentage in the bag there will not be any detonation, simply a long blue flame. It is known by a previous determination that there must be 6 per cent. of pure marsh gas to ring the gong; so if we retreat the gas cylinder and only take 4 per cent. of fire damp and the gong still rings, the extra 2 per cent. to make the gong ring must be obtained from the bag of air captured in the mine. So keep retreating the gas cylinder until the gong will just cease to ring; the difference between the standard 6 per cent. and the point where the gas cylinder stands at on the graduated beam will be the contents of the bag being tested, or if the gas cylinder is at 1 per cent., it would be evident that 1 from 6 would leave 5, and that 5 per cent. would be the contents of the bag being tested. If the gas cylinder is at 5·8 when the gong ceases to ring, 0·2 per cent. would be the contents of the bag. A 6-gallon rubber bag of fire damp or illuminating gas, whichever is used, will last a week, testing every day. The valuable features of a test of this character are absolute accuracy; ability to test low percentages or any percentage; and safety in making test, for the air can be captured in the dark by means of the diaphragm hand pump, and tested in the open air far removed

* From a paper contributed to the Federated Institute of Mining Engineers.

from the seat of danger. Air can be captured in the goaf and disused workings, and the condition of said goaf and disused workings ascertained without any danger to the miners. Heretofore the mine manager in the States has had to rely on the safety lamp for the detection of ignitible gas in the different air currents, and unless there was 2½ per cent. present, he would report "no gas," because the lamp failed to indicate the presence of gas if below this percentage. This is where all the danger lies. Supposing an air return of 100,000 cubic feet per minute was to carry 2 per cent. of ignitible gas, the ordinary safety lamp would not give any evidence whatever of the presence of the gas, and the men would work in a false security based on the lamp test, whereas actually there would be 2000 cubic feet of gas per minute passing a given point, or enough to saturate 20,000 feet of air to the explosive point. So long as the ventilation was kept up, and none of the doors was left open, everything would be all right, and it would be impossible to ignite 2 per cent. of fire damp; but, on the other hand, if anything happened to the fan, or a door were accidentally left open, the 2 per cent. of gas traveling in the air course would accumulate in 10 minutes to 200,000 cubic feet of explosive compound. The man at the face feels the air grow hot and sultry, and realises that the ventilation has been stopped or cut off and comes down with his light (frequently a naked light) to ascertain the reason. Ignorant of the true conditions, falsely imagining that there is no gas present, he walks into the explosive mixture with his light, an explosion follows, and he, and perhaps a score of his comrades, are hurled to their death. The detection not only of its presence, but of 0·1 per cent. of gas is an absolute triumph over the old method of analysis, and may be termed the first mechanical analysis of gas ever made in the world. It does not require a chemist to make any test on this instrument, as an individual can become more skilful in one day on the analysis of gases with the Shaw gas tester than he could possibly become in years without it. In presenting this instrument to the public, the inventor offers an apparatus entirely separated from the mysteries of the laboratory, a simple mechanical apparatus that any ordinary individual can operate successfully. Its uses, moreover, do not end with the testing of inflammable gases. The instrument can be used for testing the sensitiveness of every kind of safety-lamp for coal mines, and the manner in which it is done is as follows:—Attach a large bell jar to the instrument by means of a rubber tube, immerse the bell jar in a tank of water and displace the air in it, and place the gas cylinder at 5 per cent., pump a mixture of 5 per cent. of ignitible gas and 95 per cent. of air into the bell jar, displacing the water in same by the inflowing current, place a lighted safety lamp under the bell jar and immerse it in atmospheres containing 5 per cent. of ignitible gas, 6 per cent., 7 per cent., 8 per cent., or any per cent. desired, which can be pumped upon the lamp, and the action of the flame witnessed through the glass. The elongation of the flame is not so noticeable in daylight as it would be in darkness, which latter is absolutely necessary for the accurate testing of the sensitiveness of safety lamps by this only positive method. The next test is that for carbonic acid gas, and in order to illustrate this test, let us presume that the writer has exhaled his breath into one of the rubber bags. Now, the question is—How much carbonic gas does it contain? In order to ascertain this, the gas cylinder is placed at zero, and the bag containing the author's exhalations is attached to the air cylinder only; by means of the instrument, the author passes the exhalations through a test tube containing an ounce of lime-water until he produces a certain turbidity equal to an artificial standard of a known value. What volume of the exhalations will give the same result is determined by connecting a spray tube with the instrument by means of a rubber tube, and passing the exhalations from the bag through an ounce test tube of lime water, allowing the bubbles to pass up from the bottom of the test tube and permeate in little globules through the water until the same turbidity as the standard is produced. The graduated strip on the side of air cylinder shows that it has just taken 0·18 of a cylinder of exhalation to produce the same turbidity as 0·50 of a cylinder of 1 per cent. of carbonic acid gas and 99 of air. What does this indicate? Divide the 0·18 into 0·50 and we have 2·78 per cent. of carbonic acid gas in the exhalations just tested. Should we desire to make a finer analysis of the atmosphere in schoolrooms, theatres, or public buildings, instead of using lime water as a reagent, we should use a solution of barium hydrate and phenol-phthalein of a certain strength and certain proportions, and we should then have a much more sensitive reagent than the lime water, decolourising instead of turbidising. This test is now used for analysing the breath of patients in every stage of consumption. By a series of tests on the instrument we know that a healthy man ought to throw off a certain percentage of carbonic acid gas in his exhalations, which percentage varies with his temperature and after eating. The average individual will throw off from 2½ to 4 per cent. of carbonic acid gas. When a patient is brought into a hospital suffering from consumption or diabetes his exhalations are immediately tested with the Shaw gas tester, and, for instance, we will say when a man is brought in his exhalations show only 2 per cent of carbonic acid gas, this would indicate that 20 per cent. of the lung tissue is not doing its work. With this knowledge the physician places the patient under some well-known treatment, and a few days later tests his exhalations again. If the exhalations show a decrease, the physician will immediately know that his treatment is not having the desired effect; while, on the other hand, if, after a week of treatment, the carbonic acid gas increases in the exhalations, if there is no fever, it is known that the patient is improving. The Shaw gas tester has been made by the legislature of Pennsylvania the official standard for testing dangerous mine gases, and for watching over the ventilation in mines; and the 16 mine inspectors each have one of these instruments to enable them to carry out their duties in this direction. Nearly all the large coal companies in the anthracite and bituminous regions of Pennsylvania have adopted the Shaw gas tester for their mines. It has also been made the official standard for the State of Ohio for coal mines, and has been adopted by the largest gas companies in the United States for discovering leaks in the street mains, which it will readily do without the street having to be torn up, excepting where the actual leakage is, thus effecting the saving of many thousands of pounds annually to those who use it. The instrument can also be used on board naval vessels, ocean steamers, and particularly oil tank steamers, for detecting the presence of ignitible gas in the coal bunkers and oil tanks, and thus prevent explosions at sea. It has many other uses, which will develop in proportion to the ability of the public to appreciate its magnificent and illimitable usefulness.

THE Western Australian Government have accepted the tender of C. J. Griffith to put down 1800 feet of boring on the Collie coal field with the view of having the country tested. The contract price is £2500. The core is to be handed to the Government Analyst to keep a record of the different strata pierced. The contract is to be carried out by a company which Mr. Griffith is promoting with a capital of £10,000. Operations will be carried out under the superintendence of Mr. W. A. Atkinson, of South Australia. It is also intended to bore for water, gold, and other minerals in different parts of the colony.

SPECIAL CORRESPONDENCE:
COLONIAL AND FOREIGN.

OUR PARIS LETTER.

South African Shares.—A lull in Investments.—Position of Copper.—Gold Mining in Nicaragua.—The Colliery Industry in Tonkin.

ALTHOUGH there is not much activity in the demand for South African gold mining shares, such as there is indicates a tendency to flow into wider channels in this direction. Instead of attention being confined to dividend-paying mines, nearly all properties of any promise on the Witwatersrandt are being bought to some extent. As a result, many of the companies are adopting the "bearer" share system, which is necessary to transactions with the Continent. One of the latest concerns to adopt this policy is the Henry Nourse shares, which have been rather extensively bought here. It is a "tip" amongst Parisian speculators that this mine will begin to pay dividends of 15 or 16 per cent. next year. The Langlaagte Estate, to the fall in the value of which I alluded in my last letter, has again taken an upward movement. French capital will probably be relied upon to carry out the amalgamation of part of this company's property with the Star block of claims, to which allusion was made in this column a fortnight ago. The figure at which the proposed transaction is carried out, as compared with the sum paid for the Star Mine and plant—only £11,250—will probably furnish another light on the profits obtainable by Johannesburg financiers. However, the bankers and others in Paris who are co-operating with Mr. J. B. Robinson in these new developments, say that speculators cannot object to heavy profits for vendors so long as a remunerative share in the enterprise is available for themselves. It is declared that the suspicion and acerbity with which Johannesburg financiers are treated in England are responsible for the introduction of so many Randt mines on to the Parisian market, and are thus giving opportunities to French capital, which would otherwise be utilised in England. As yet, only a few of these Transvaal concerns are dealt in on the regular Bourse, the rules of which demand a face value to the shares of 100 francs, but they are growing an ever more important item in the operations of the Petite Bourse.

In other branches of mining investment there is a temporary lull in speculation, and every class of scrip suffers to a more or less extent from the period of inactivity through which we usually pass at this season of the year. The attendance on the Bourse has been very thin during the past week or two in consequence of so many dealers having gone away for their annual holidays. Few people are consequently inclined to do any large amount of business, and there is a general inclination to "wait until the end of September." Besides this feature of quietude, it is an unfortunate fact that the prevailing depression of trade has contributed a great deal towards the present feeling of lassitude. While capital in metallurgical and other home undertakings can see no immediate prospect of remunerative returns—the shares of many ironmaking companies have, indeed, fallen heavily during the past few weeks—investors are fighting shy of foreign enterprises, and are waiting for an upward turn of the market before dealing in mining and metal shares. Confidence has been further weakened by the unexpected withdrawal from the board of the Acieries de France of MM. Vlasto, Thiebaut, and de Serisey, administrators of the Comptoir d'Escompte, who are understood to have retired because of their inability to make the concern as flourishing as it was in the days of Baron Dorlodot. This secession in what was considered to be one of the most prosperous metallurgical companies of France has naturally evoked a feeling of suspicion as to the state of some other large works that have apparently fallen upon evil times. As a set off to this difficulty it must be remembered that the few years preceding the Exhibition of 1900 will certainly be marked by a great revival of industrial activity, and it is fully expected that the connection now being built up with Russia will in course of time have an excellent effect upon the industry of France.

The slight recovery that took place a few weeks ago in copper has not been sustained, and the metal has dropped back once again into its chronic state of dulness. All sorts of theories have been brought forward as to a probable early rise in copper. The renewal of the syndicate for limiting production could not fail to uphold the value of the metal, while it was likely that heavy supplies would be required by China and Japan who are actively engaged in laying in supplies of war material. Unfortunately, even in China the brass cannon with its florid adornment of wonderful dragons has given way to modern steel weapons, and there seems to be very little scope now for a further consumption of the metal in this direction. It is scarcely possible to hope, therefore, that any revival in copper will proceed from the East as a result of the present dilatory warfare between the two Oriental powers. At the same time it is certain that copper is in a position that renders it very susceptible to any favourable influence, and it is significant that the shares of the Société des Métaux, which is so closly identified with the copper industry, have lately undergone an appreciable advance.

Information continues to be given from the Ministere des Travaux Publics concerning the mineral resources of South America, evidently in the hope that a current of the enormous capital that at present remains unproductive in the country may be directed into this channel. This week details have been published of the gold deposits in Nicaragua, where the outlook for the industry is considered to be a very encouraging one. It is stated that there is a vast mountainous system extending to the Atlantic seaboard, where gold is to be found in very large quantities, but at present the working of these deposits is restricted by the difficulties of transport. For the moment, enterprise is confined almost entirely to the districts on the border of Honduras and along the eastern bank of the Nicaragua lake. These mines produce from ¼ ounce to 2 ounces per ton, and the total annual output is estimated at 22,754 ounces. In some districts it is only possible to work ore with a high percentage of the precious metal, as, in the absence of roads, the conveyance of machinery to the mines is almost out of the question. Notwithstanding these drawbacks, there are about 20 mines at work in the province of Legovia, and a dozen others are lying idle owing to a want of capital. It is considered certain that if the means of transport were improved, and modern machinery were employed in the treatment of the ore, the gold mining industry in Nicaragua would become a very profitable one. Besides gold, the country possesses vast supplies of silver, but in the present depreciated state of the metal they are not likely to be worked.

The colliery industry in Tonkin, which is supported largely with the aid of British capital, will be directly benefited by the proposal that is only waiting the formal sanction of the French Chamber for the construction of an extensive railway system. This system comprises about 3000 kilometres of metre gauge line, and the whole cost, including the rolling stock, is estimated at less than eight and a-half millions sterling. The metre gauge has been adopted in preference to the narrower one, as it is found to work admirably at the Hongay Colliery, where a 15 kilometres line has, during the past two years, conveyed a daily load of 500 tons of coal, in four trains composed of 8 ton wagons. In view of this undertaking, the Société de Kéba has resolved to construct a port at Tien-Yen which will allow of their supplying the whole of the Eastern markets with fuel mined in Tonkin.

OUR SOUTH AUSTRALIAN LETTER.

(FROM OUR OWN CORRESPONDENT).

ADELAIDE, AUGUST 8.

IT is gratifying in these times of depression to be able to report anything likely to aid in bringing about a revival. As has been before mentioned, the hard times have had one good effect—in inducing a more than usually energetic search for gold in many parts of the colony where it has not before been found, as well as in some localities where the precious metal has been already obtained. These efforts have met with a more than usual amount of success, and were it not that the wonderful discoveries in Western Australia have brought about a perfect furore in favour of that colony—the distance of the mines having almost as great an effect as their richness—we should have provided more by the recent discoveries in South Australia. As a matter of fact, probably not more than 10 per cent., at the very most, of the capital and labour that has left our shores for Western Australia has given any return to the investors. If the same amount of physical exertion and money had been expended in the development even of recently-found deposits of gold here, there is not the slightest doubt that far better results in the aggregate would have been obtained. In other words, "the greatest good to the greatest number" would have been more realised had our investors and prospectors stuck to their own country.

The Lux Gold Mine, 25 miles from the boundary between South Australia and New South Wales, and consequently well within this colony, is turning out wonderfully rich stone. In a former letter I mentioned the splendid specimens which had been sent down from the mine, fully equal to any we have seen from Coolgardie, Western Australia. Since then a number more of similar character have been raised, and the rich "block" in the reef has been proved to carry quartz, the value of which can only be little more than guessed at, but which is roughly estimated by experts at from 200 to 500 ounces of gold per ton of stone The known dimensions of the block at present are 20 feet long by 20 feet deep, and fully 2 feet wide. The quartz, being a dense brown, healthy looking rock, contained within space would weigh from 50 to 55 tons—take it at 50 and 200 ounces of gold to the ton gives 10,000 ounces, which at the actual mint value of £4 per ounce would give £40,000—or £800 per ton for the stone.

The Nillinghoo country is in course of being proved, and in some parts on the course of the reef formation is turning out rich. Five tons from the best claim, but only ordinary stone, with any rich pieces kept out, were treated at the Government Cyanide Works lately, the result being 6 ounces of fine gold. Seeing that the reef at this spot is considerably over 20 feet wide, half the quantity would pay well. From other parts of the same formation over a length of fully 1½ miles good stone is found, worth from 15 dwts. to 1 ounce of gold per ton. Yesterday's *Register* contains a correspondent's report on the premier claim in Nillinghoo (Kerkeek's Treasure) in which he mentions that "the shaft is down 72 feet into the lode without meeting the footwall, and the crosscut is in 21 feet with the hanging wall not yet in sight. This is the greatest gold bearing lode that has been unearthed in South Australia."

In a sub-leader on the subject the *Register* remarks: "There is not the slightest doubt that, as our correspondent expresses it, the Kerkeek's Treasure lode has been proved to be the greatest gold bearing lode that has yet been unearthed in South Australia." Probably the writer of the article has never been within 50 miles of the lode in question, but whether or no, a much larger gold bearing reef exists near Yudanamutana 60 feet wide, assays of the stone averaging 10 dwts. of gold per ton. Then for richness the Kerkeek's Treasure is not to be compared with the Lux. Great expectations are entertained regarding Nillinghoo, and properly so, but it is too soon to speak thus confidently of the field.

Gold mining at Mount Pleasant is again looking up. A very promising reef has been cut in the Golden Slope, seven dishes from the loose rubbly quartz giving 14 dwts. of gold, estimated at the rate of fully 22 ounces to the ton of stone.

A prospecting party who went away four months ago have just returned with the news that they have discovered rich gold reefing country in the far north-west of South Australia, about 150 miles west of the present terminus of our Great Northern Railway (Oodnadatta). This spot is far more easy of access than most of the gold fields of Western Australia, and the discoverers, though reticent, speak confidently of the value of their find.

CRYSTALLINE GOLD IN BANKET.—Mr. Crosse, chemist to the Standard Bank, has made the interesting discovery of crystalline gold in banket taken from a depth of no less than 700 feet. The mine from which this came is the Durban Roodepoort Deep Level, the leader of which has always shown wonderful results. On panning some of the banket, amalgamating the tiny beads with mercury, then dissolving the mercury by nitric acid, a number of small crystals of pure gold, which through a powerful microscope showed themselves to be almost perfect octahedrons, were discovered. Some of these are separate, others are built together in the most delicate shapes, and are unmistakable crystals. It has till now been thought that gold contained in banket was all waterworn, showing it to have been laid down with the quartz, by some tidal action. The discovery of the crystalline gold, however, shows unmistakably that such gold has been in solution. With a fact like this to go upon (Mr. Crosse has made many tests, but has never seen this phenomenon before), it may be possible to widen our knowledge of the banket theory, to account satisfactorily for the presence or absence of an unusual amount of gold in the neighbourhood of dykes, and such like problems, which have not been satisfactorily solved. [Comment.—As the auriferous pyrites and free gold in the mass cementing the pebbles of the Rand conglomerate are invariably crystalline and never waterworn, it may be assumed that their introduction has been subsequent to the original deposit.—*The Minerals of Southern Africa.*]

THE De Kaap district of the Transvaal produced 51,000 ounces of gold during the half-year to June 30, the totals for the corresponding halves of 1893, 1892, 1891, 1890, and 1889 being 31,000 ounces, 32,500 ounces, 28,000 ounces, 11,000 ounces, and 21,000 ounces. The Sheba Mine alone returned 39,819 ounces, as against 18,233 ounces. The other principal outputs of the half-year are: United Ivy, 2208 ounces, Barrett 1947 ounces, Coetzeestroom Estate 922 ounces, and Central Montrose 686 ounces.

EXPORT AND IMPORT TRADE.

THE BOARD OF TRADE RETURNS—AUGUST TABULAR STATEMENT.

Specially compiled for "The Mining Journal" from the Board of Trade Returns.

THE Board of Trade returns show that the Imports for the month ended August 31 amounted to £31,638,521, against £35,002,772 for the corresponding month of last year, being a decrease of £3,364,251. The Imports for the eight months ended August 31 were £274,467,011, against £265,924,623 for the corresponding period in 1893, being an increase of £8,542,388. The Exports for August amounted to £18,581,240, against £19,530,178 in the same month last year, showing a decrease of £948,938. The Exports for the eight months ended August 31 were £143,863,251, against £146,959,492 for the same period of 1893, giving a decrease of £3,096,241.

EXPORTS:—SUMMARY OF INCREASES AND DECREASES.

PRINCIPAL AND OTHER ARTICLES.	QUANTITIES. INCREASE.	QUANTITIES. DECREASE	VALUE. INCREASE	VALUE. DECREASE
Raw Materials:				
COAL and Patent Fuel ... Tons	531,290	—	£384,542	£ —
COAL, &c., shipped for steamers' use ... ... Tons	126,257	—	—	—
Metals:				
BRASS, and manufactures of Cwts.	—	2,719	—	11,005
COPPER, unwrought and wrought ... ... Cwts	10,251	—	1,024	—
HARDWARE and cutlery £	—	—	—	13,805
IMPLEMENTS and tools, and parts thereof ... £	—	—	—	2,845
IRON, unwrought and wrought Tons	—	40,855	—	207,663
LEAD, pig, rolled, &c. ,,	—	1,189	—	14,146
PLATE, and plated gilt wares £	—	—	—	3,189
TELEGRAPH WIRES, &c. £	—	—	—	109,309
TIN, unwrought ... Cwts	—	5,407	—	37,349
ZINC or SPELTER ... ,,	2,363	—	—	190
OTHER ARTICLES ... £	—	—	—	19,353
			1,024	413,854
			—	1,024
Total	—	—	—	412,830
Machinery:				
Steam engines	—	—	41,774	—
Other descriptions	—	—	95,727	—
			—	—
			136,931	—
			—	—
Total	—	—	136,931	—
ALKALI ... ... Cwts.	—	57,460	—	36,354
CEMENT ... ... Tons	1,578	—	2,213	—
PRODUCTS of COAL ... £	—	—	1,373	—

EXPORTS:—BRITISH AND IRISH PRODUCE.

PRINCIPAL AND OTHER ARTICLES	QUANTITIES. Month ended Aug. 31. 1893.	QUANTITIES. Month ended Aug. 31. 1894.	VALUES. Month ended Aug. 31. 1893.	VALUES. Month ended Aug. 31. 1894.
Metals and Articles Manufactured therefrom (except Machinery):—	Cwts.	Cwts.	£	£
Brass, and Manufactures of, not being Ordnance	10,461	7,742	43,151	29,146
Copper: Unwrought, in Ingots Cakes, or Slabs, and Precipitate:				
To Germany	8,734	12,606	20,399	27,062
,, Holland	10,293	9,710	24,547	20,5 4
,, Belgium	2,462	2,502	5 684	5,3 8
,, France	5,684	4,441	13,536	9,271
,, Italy	1,103	2,080	2,530	4,537
,, British East Indies ..	123	15	298	32
,, Other countries	7,480	12,183	18,017	24,937
Total	35,879	43,537	85,011	91,601
Wrought, or Manufactures unenumerated:				
To Sweden and Norway ..	968	557	2 923	1,514
,, Germany	1,289	337	4,142	1,182
,, Turkey	3,811	3,376	10,823	9,835
,, Egypt	863	2,425	2,345	6,163
,, Brazil	1,696	1,983	4,912	5,315
,, British East Indies ..	8,681	8,181	22,414	19,660
,, Australasia	7 5	1,138	2,155	3,360
,, Other countries	7,854	8,610	24,158	24,893
Total	25,874	26,600	73,912	69 935
Mixed or Yellow Metal:				
To China and Hong Kong ..	298	3,359	689	7,151
,, British East Indies ..	16,426	12,598	38,109	24,667
,, Other countries	5,253	7,887	13,084	19,470
Total	21,977	23,844	51,881	50,292
Total of Copper	83,730	93,981	210,944	211,828
Implements and Tools, and parts thereof	—	—	95,809	92,954
Iron and Steel: Pig-iron:	Tons.	Tons.	£	£
To Russia	24,456	15,682	58,762	35,748
,, Sweden and Norway ..	4,522	3,134	9,002	6,896
,, Denmark	1,868	1,562	3,999	3,188
,, Germany	22,680	27,021	44,078	51,545
,, Holland	10,691	10,740	23,795	23,317
,, Belgium	3,534	3,673	9,170	10,581
,, France	3,503	1,546	7,452	4,915
,, Portugal, Azores, and Madeira	422	387	930	844
,, Spain and Canaries ..	2,521	2,871	5,447	6,234
,, Italy	9,968	7,647	22,703	16,602
,, United States	1,397	615	5,581	4 798
,, Australasia	1,461	1,706	3,014	3,621
,, British North America ..	3,490	460	9,133	1,418
,, Other countries	6,145	4,672	13,564	10,101
Total	95,598	81,076	216,960	180,204
Bar, angle, bolt, and rod ..	13,977	8,695	37,1 8	55,448
Railroad of all sorts	67,414	42,140	293,593	179 371
Iron and steel wire, &c. ..	3,145	3,226	53,325	51,055
Galvanised sheets	13,228	14,046	160,784	156,406
Hoops, plates, boiler plates, &c.	12,5 9	9 849	95,816	69,989
Cast and wrought iron, &c. ..	24,320	24,921	316,802	309,923
Old, for re-manufacture ...	8,373	8,279	25,501	21,071
Steel, unwrought	15,889	20,681	156,757	183,717
Manufactures of steel, or of iron and steel combined ...	1,057	1,909	38,509	45,745
Total of iron and steel ...	281,832	240,977	1,179,846	1,572,103
Tin Plates and Sheets:				
To Russia	2,153	759	25,620	9 643
,, Germany	47	421	715	5,309
,, Holland	342	332	4,972	4,263
,, France	527	520	6,863	6,530
,, Portugal, Azores, and Madeira	367	322	4,573	3,988
,, Italy	231	214	3,069	2,872
,, Roumania	789	194	11,149	2,475
,, United States	15,784	19,125	206,735	231,245
,, Brazil	476	396	6,341	4,588
,, Argentine Republic ...	232	141	3,037	1,751
,, British East Indies ...	171	433	7,360	5,377
,, Australasia	517	624	6,821	7,617
,, British North America ...	1,551	1,272	21,163	14,6 9
,, Other Countries	1,824	1,4 6	25,111	19,155
Total	25,4 2	26 225	334,466	319,352
Lead: Pig Sheet, Piping, and Manufactures;	Tons.	Tons.	£	£
To Russia	1,556	565	15,657	5,812
,, Germany	471	150	4,973	1,521
,, China and Hong Kong ..	381	523	3,795	5, 35
,, Japan	150	228	1,5 6	2,338
,, United States	1	160	28	2,624
,, British East Indies ...	824	409	8,154	5,884
,, Australasia	78	35	884	403
,, British North America ...	113	180	1,195	1,516
,, Other countries	1,079	834	11,710	8,933
Total	4,353	3,164	48,013	33,866

BRITISH AND IRISH PRODUCE—*Continued.*

PRINCIPAL AND OTHER ARTICLES	QUANTITIES. Month ended Aug. 31. 1893.	QUANTITIES. Month ended Aug. 31. 1894.	VALUES. Month ended Aug 31. 1893.	VALUES. Month ended Aug 31. 1894.
Plate & Plated & Gilt Wares	—	—	26,211	23,022
Telegraphic Wires, & apparatus connected therewith ..	—	—	176,859	67,650
Tin, Unwrought:	Cwts.	Cwts.	£	£
To Russia	3,625	2,550	15,835	9,072
,, Sweden and Norway ...	736	329	3,253	1,192
,, Germany	1,008	748	4,452	2,535
,, France	2,325	826	10,285	2,919
,, Turkey	1,574	637	7,043	2,277
,, United States	—	406	—	1,461
,, British North America ...	936	546	4,199	2,024
,, Other countries	5,169	3,914	22,813	14,101
Total	15,373	9,966	67,930	35,581
Zinc or Spelter: Unwrought and Wrought	9,779	12,142	8,564	8,374
Total of Principal Articles ...	—	—	2,621,169	2,227,692
,, other Articles	—	—	70,372	51,019
Total of Metals and Articles Manufactured therefrom (except Machinery)	—	—	2,691,541	2,278,711
Alkali	447,034	389,574	147,332	110,978
	Tons.	Tons.		
Cement	36,948	38,528	63,707	65,920
Products of coal (including paraffin, petroleum, &c.) ...	—	—	75,955	77,330

MACHINERY.

			£	£
Mining: (Not Steam Engines.)				
To Countries in Europe ..	—	—	2,629	871
,, United States	—	—	21	10
,, Countries in South America	—	—	5,725	2,249
,, British Possessions in S. Africa	—	—	20,972	20,159
,, ,, East Indies	—	—	4,144	4,464
,, Australasia	—	—	513	80
,, Other Countries	—	—	3,662	6,494
Total	—	—	37,616	34,327
Total of Machinery other than Steam Engines	—	—	875,620	971,347
Total of Steam Engines ..	—	—	275,525	216,729
Total of Machinery and Mill Work	—	—	1,151,145	1,2 8,' 76

EXPORTS OF FOREIGN AND COLONIAL MERCHANDISE.

PRINCIPAL ARTICLES.	QUANTITIES. Month ended Aug. 31. 1893.	QUANTITIES. Month ended Aug. 31. 1894.	VALUES. Month ended Aug. 31. 1893.	VALUES. Month ended Aug. 31. 1894.
Copper: Unwrought and part wrought	Tons. 1,250	Tons. 727	£ 57,297	£ 30,796
Iron and Steel:				
Bar, angle, bolt, and rod ...	3,894	1,655	36,675	13,063
Steel, unwrought	399	127	4,842	1,295
Manufactures:				
Girders, beams, and pillars ...	59	13	188	83
Unenumerated	Cwts. 70,961	Cwts. 66,545	40,340	39,004
Petroleum	Gals. 156,093	Gals. 140,278	6,586	5,543
Quicksilver	Lbs 357,583	Lbs. 315,268	29,798	23,637
Saltpetre	Cwts. 416	Cwts. 1,724	375	1,802
Tin, in blocks, ingots, bars, or slabs	16,721	40,8 7	67,793	142,076

IMPORTS.

SUMMARY OF INCREASES AND DECREASES.

PRINCIPAL AND OTHER ARTICLES.	QUANTITIES. Increase.	QUANTITIES. Decrease.	VALUE. Increase.	VALUE. Decrease.
Metals:			£	£
COPPER: Ore ... Tons	—	110	11,750	—
Regulus ... ,,	—	1,489	—	36,955
Unwrought and part wrought	857	—	12,768	—
IRON: Ore ... ... ,,	—	34,032	—	25,637
Bar ... ... ,,	—	1,964	—	15,450
Steel, unwrought ,,	—	550	—	6,048
LEAD: Pig and sheet .. ,,	—	5,775	—	66,4 8
PYRITES of Iron or copper ,,	—	66	1,000	—
QUICKSILVER ... Lbs.	48,438	—	3,920	—
SILVER ORE	—	—	—	85,986
TIN, in blocks, &c. ... Cwts.	27,710	—	62,155	—
ZINC, crude ... ... Tons	402	—	—	1,136
OTHER ARTICLES	—	—	49,085	—
			140,678	237,680
			—	140,678
Total	—	—	—	97,002
Chemicals:				
ALKALI ... ... Cwts.	—	1,993	—	1,781
BRIMSTONE ... ... ,,	54,612	—	8,163	—
SALTPETRE ... ... ,,	—	1,547	211	—
Iron Manufactures:				
Beams, girders, &c. ... Tons	—	946	—	7,253
Unenumerated ... Cwts.	—	55,340	—	20,482
ZINC MANUFACTURES ... ,,	—	6,570	—	8,198

FOREIGN AND COLONIAL PRODUCE.

PRINCIPAL AND OTHER ARTICLES.	QUANTITIES. Month ended Aug. 31. 1893.	QUANTITIES. Month ended Aug. 31. 1894.	VALUES. Month ended Aug. 31. 1893.	VALUES. Month ended Aug. 31. 1894.
Copper:	Tons.	Tons.	£	£
Ore:—From Spain	560	268	1,290	3,437
,, Italy	—	320	—	1,100
,, United States ..	268	118	2,680	2,126
,, Venezuela ...	—	—	—	—
,, Chili	158	1,613	1,810	13,540
,, Cape	—	—	—	—
,, British N. America	4,136	3,181	8,272	4,772
,, Other countries ...	701	512	9,6 3	10,640
Total	6,122	6,012	23,865	35,615
Regulus and Precipitate:				
From Portugal	297	50	6,680	300
,, Spain	5,108	5,869	114,247	139,582
,, United States ..	2,469	125	60 730	3,193
,, Chili	105	68	3,240	1,712
,, Other countries ...	866	1,080	12,178	15,336
Total	8,681	7,192	197,075	160,120
Unwrought and part Wrought:				
From United States ..	1,691	2,427	75,984	96,544
,, Chili	439	882	18 266	34,419
,, Australasia ...	377	415	18,4 5	16,595
,, Other countries ...	926	516	44,166	22,041
Total	3,433	4,240	156 831	169,599
Iron and Steel:				
Iron ore { From Spain ...	376,396	324,836	251,7 9	209,378
Iron ore { Other countries ...	44,974	62,502	43,127	59,901
Total	421,370	387,338	294,916	269,279
Iron, bar, angle, bolt, & rod ..	7,784	5,820	73,347	57,857
Steel, unwrought	474	324	9,476	3,428
Lead, pig and sheet	17,010	11,835	174,384	107,956
Pyrites of iron or copper or sulphur	54,641 Lbs	54,578 Lbs.	92,737	93,737
Quicksilver	7,500	55,938	620	4,540
Silver Ore	—	—	237,439	151,453
Tin, in blocks, ingots, bars, or slabs:	Cwts.	Cwts.		
From Straits Settlements ...	30,634	59,774	131,310	208,108
,, Australasia	10,259	11,241	42,134	38,596
,, Other countries ...	4,502	2,290	18,229	7,129
Total	45,395	73,105	191,678	253,833
Zinc, crude in cakes ... Tons	4,123	4,525	71,773	70,637
Total of principal articles ...	—	—	1,524,141	1,378,054
,, other articles	—	—	132,070	181,155
Total	—	—	1,656,211	1,559,209

MEETINGS OF MINING COMPANIES.

KLERKSDORP ESTATES.

Reconstruction decided upon—The recent discoveries.

AN extraordinary general meeting of the Klerksdorp Estate (Limited) was held on Wednesday, at the offices, 110, Cannon-street, E.C., under the chairmanship of Mr. D. MACDONALD.

The SECRETARY (Mr. A. I. May) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, the directors have convened this meeting in order to submit a scheme of reconstruction, and to ask you to approve of the resolutions which you have just heard read; but before putting them it is advisable that some short account of the past history and future prospects of the company should be given to the shareholders who have recently come on the register. In June, 1891, 2s. per share was subscribed by the shareholders, for the purpose of exploring the ground and ascertaining what reefs it contained in addition to those already opened up, and whether the quartz or banket was of such a nature as to justify the expenditure of further capital for actual mining operations, and the money then subscribed was to be limited to these exploring operations, it having been pointed out by the directors that it would be insufficient for any other purposes. Since the last meeting of shareholders the conditions of working on the Klerksdorp Fields have greatly improved. A good seam of coal has been discovered about six miles from the mine. The main line of railway is within 80 miles of Klerksdorp, and a branch line has been authorised, terminating at or near the company's property. The adjoining reefs on the East Leigh property are being worked on an extensive scale with much success. The developments recently carried out on your property have shown that there is an almost inexhaustible deposit of payable ore, if worked on an adequate scale. In February of this year our agent reported the discovery of new reefs giving assays of over 2 ounces to the ton. A small portion of the property previously opened up by the company was let on tribute. The plates yielded, according to the lessee's returns, 7 dwts. to 8 dwts. per ton. During last year the tributer's return of ore crushed on our property was as follows:—January, 680 tons crushed, yielding 193¾ ounces of gold; February, 465 tons, yielding 101 ounces; March, 200 tons, yielding 62¾ ounces; April, 200 tons, yielding 66¼ ounces; May, 250 tons, yielding 76¾ ounces; June, 195 tons, yielding 78¼ ounces; July, 175 tons, yielding 98¼ ounces; August, 150 tons, yielding 53 ounces; September, 100 tons, yielding 23 ounces; making a total of 2415 tons crushed, yielding 753¼ ounces. Before the tributers had been at work many months it came to the knowledge of the directors that diamonds were being recovered with the gold. This discovery came as a revelation, and the board regretted it could not claim these stones under our agreement with the contractor, and thereupon the board terminated the agreement at the earliest possible date. A parcel of diamonds was, however, brought to the company's offices, with an attestation to the effect that they were taken from our ground. Diamonds continued to be found, chiefly in the cement cleaned out of the mortar boxes, leading to the inference that the larger stones must have been pulverised by the stamps. Some of these stones have been polished, and proved to be gems of the first water, having been pronounced by the highest expert as unique in character. It now became a serious consideration as to how the diamonds could be systematically recovered. An expert from the Kimberley diamond fields was engaged. He devised a plant for the purpose, but the cost was beyond our means. The funds placed at the disposal of the directors were strictly confined to prospecting operations, and to the discharge of certain liabilities specified in the contract with the liquidators, which was approved by the shareholders in general meeting. The property consists of three mining leases, in extent 1975 acres. The reefs have been proved to run through two of these for a distance of three miles. The third mining lease has not yet been examined to such an extent as to enable the directors to pronounce upon its value; but it is generally believed locally that the rich Buffelsdoorn reefs run through it. You possess, gentlemen, a very valuable mining plant. A 30-stamp Sandycroft battery and mill-house, with all necessary appliances, have been erected, with tram line and trucks. The necessary houses for manager and workmen are ready for occupation; in fact, the whole property is thoroughly equipped, and needs only the necessary funds for speedy development. It will thus be seen that the outlook is extremely favourable, and with the fresh capital now proposed to be raised, operations for the winning of gold and diamonds could be commenced, and a very prosperous future should be in store for us all. I must not omit to apologise for the absence of some of my co-directors. Mr. Reid is in South Africa, and Messrs. Deare and Leask, two of our esteemed colleagues, desire me to express their regret that they are prohibited, by serious ill-health, from attending this meeting. They are large debenture and shareholders, and in proof of their appreciation of this scheme of reconstruction they have concurred in an arrangement with the debenture-holders that, if this scheme be carried, the debenture-holders should forego 25 per cent. of the amount of their debentures, which will augment the working capital to the extent of £4000, and they undertake to apply for their full quota of shares in the new company. (Applause.) If any further proof be needed of the directors' confidence in the concern, it will be found in the fact that the directors will apply for the full amount of shares to which they are entitled in the new company, and will be quite willing to increase their holdings should there be any surplus of shares left. (Hear, hear.) The proposed scheme will, if passed, start the new company, after all liabilities have been discharged, with a working capital of between £30,000 and £40,000, and unless the subscriptions produce this result the reconstruction will not be proceeded with. I may add that several shareholders have made application for any surplus shares that have not been applied for, so that the financial success of the scheme now before you would appear to be practically assured. Under the scheme of reconstruction the present shareholders would be entitled to an allotment of eight shares of 10s. each, 7s. paid, for every three shares of £1 each held by them in this company. I will just read to the meeting a circular issued by the Klerksdorp board of executors, dated Klerksdorp, May 12, 1894:—"Since our last circular the improvement in mining and business circles, then referred to, has steadily advanced. The output of the Schoonspruit gold fields 1893 was returned as 24 406½ ounces gold and about 70 green diamonds. (For 1891 and 1892 the outputs were respectively 10,688½ ounces and 11,238 ounces). The average yields for the last three months of 1893 of the local companies were as follows: Buffelsdoorn, about 12½dwts. per ton; Eastleigh, about 11 dwts. per ton; Afrikander, about 9 dwts. per ton; Ariston, over 15 dwts. per ton. The Buffelsdoorn started 30 additional stamps last month. The new 60 stamp mill of the Eastleigh and the cyanide plant are almost completed. The Ariston is now erecting cyanide works. A small cyanide plant has been erected in connection with a five stamp battery worked by tributors. The Elandslaagte has just been reconstructed. The Afrikander Company shut down early in the year, has recommenced work. Green's block of claims at Reitkeil is sold to a Johannesburg company. The discovery of a seam of coal, some 10 feet thick, of very good quality, about six miles from Klerksdorp, will have a most important effect in the cheap working of our mines. House rent is rising rapidly, and all landed and house property is firmly held. The opening of each mine increases the population considerably, and business is decidedly improving. Notwithstanding the fact that the work of the established companies has proved satisfactory, it must be remembered that the district is still practically unprospected, and anything like a rush, which may result in an undue inflation of business, we deprecate most strongly, and would impress upon our constituents the wisdom of avoiding a repetition of the 'boomlet' of 1889, and

also the inevitable collapse.—Yours faithfully, A. P. Myburgh, Secretary." In conclusion, I will move the first resolution as follows:—"That it is desirable to reconstruct the company, and that, with a view thereto, the company be wound up voluntarily, under the provisions of the Companies' Acts, 1862 to 1890, and that Arthur John May, the secretary of the company, be and he is hereby appointed liquidator for the purposes of such winding up, at an agreed fee of 100 guineas" I call upon Mr. Francis, the solicitor to the company, to read the agreement. (Applause.)

Colonel F. G. STEUART seconded the motion.

Mr. FRANCIS, solicitor to the company, read the provisional agreement.

Mr. ROBINSON said he should be glad to have information as to the reported arrival in London of a big parcel of diamonds from the company's mines.

Mr. POSNO said he thought from what the Chairman had said, that the property had a good future before it. He heartily supported the scheme.

Mr. NUNN concurred in the view that the company's prospects were very good. It was, however, a question whether the present time was a favourable one for undertaking new developments, and, from his own observation, he thought it undoubtedly was, and that there was every prospect of success. According to what they had been told the new company would start with a capital of somewhere about £30,000 or £40,000, which he thought ought to be ample to carry out developments and fully prove the value of the mines. The proposal made by the holders of debentures seemed to be exceedingly advantageous to the shareholders.

Mr. MARSHALL JAY thought that any doubts which might have arisen as to the wisdom of the reconstruction proposals would have been dissipated by the Chairman's admirable speech, in which it had been clearly proved that this course was the only one open to them if they wished to save their property, and he thought that if any blame was attaching to the board, it was owing to their not having suggested the course at an earlier period. Had this been done at the beginning of the year, they might now have been meeting together to receive an account of the first six months working, with the probable pleasant addition of an interim dividend. Freed from the incubus of debt, provided with sufficient working capital, and the board fortified with new blood, they might confidently expect a turn in the tide of their affairs which would lead on to fortune. A much-to-be-desired result which could be quickly brought about if the directors would at once commence treating their inexhaustible resources of ore by the cyanide process, and would at the same time work the diamond grounds or leave the same to others who are anxious to do so.

The CHAIRMAN, in reply to Mr. JACKSON, said the shareholders would be liable for 6s. a share. The report as to the bag of diamonds from the company's property had reached the directors, but they had not yet seen it.

The motion was then put and carried unanimously.

The CHAIRMAN proposed: "That the said liquidator be and he is hereby authorised to consent to the registration of a new company, to be named the Klerksdorp Gold and Diamond Company (Limited) or some other suitable title."

The motion was seconded by Mr. LINDO, and carried.

The CHAIRMAN proposed: "That the draft agreement submitted to the meeting, and expressed to be made between this company, its liquidator, and the proposed new company (initialled by the Chairman) be, and the same is hereby, approved, and that the said liquidator be and he is hereby authorised, pursuant to section 161 of the Companies' Act of 1862, to enter into an agreement with such new company (when incorporated) in accordance with such draft, or as near thereto as may be, and to carry the same into effect."

Mr. W. VINCENT seconded the motion, which was carried.

The CHAIRMAN next proposed: "That the said liquidator be, and he is hereby, expressly directed to make the payments expressed in the said draft agreement," which was also agreed upon.

The proceedings then terminated with a vote of thanks to the Chairman.

SOUTH SIMMER AND JACK DEEP LEVEL GOLD MINING COMPANY, LIMITED.

The amalgamation scheme approved.

An extraordinary general meeting of the South Simmer and Jack Deep Level Gold Mining Company (Limited) was held on Monday at Winchester House, under the chairmanship of Mr. F. A. THOMPSON, for the purpose of considering, and, if deemed advisable, passing the following resolution:—"The company, having heard the explanations of the agreement, dated the 13th day of August, 1894, and made between the Consolidated Gold Fields of South Africa (Limited) of the one part, and the company, of the other part, do hereby approve the action of the directors in entering into such agreement, and accept and confirm the same, and authorise the directors to carry the same into effect."

The SECRETARY (Mr. B. O. Orlebar) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, as you have been made aware by the notice convening the meeting, you have been called together for the special purpose of confirming an agreement made with the Consolidated Gold Fields of South Africa (Limited), respecting the amalgamation of the property of this company with that of the Simmer and Jack Gold Mining Company (Limited), under an arrangement made with the Consolidated Gold Fields, the terms being that out of a total capital of £250,000, this company shall receive for the issued capital 33,000 shares fully paid. The working capital of the proposed company, as I understand it, will be 45,000 shares of the company, which are guaranteed at £6. That is, in substance, the agreement which has been entered into, and which you are called together for the purpose of confirming. I beg to move the resolution, of which notice has been given, and if there be any questions any shareholder would like to ask, I shall be happy to answer them.

In answer to questions put by Mr. ELLIS GILMAN, the CHAIRMAN stated that under the agreement the shareholders would have the right to subscribe their proportion of the working capital guaranteed by the Gold Fields Company. The capital of the amalgamated company, which would take over this company's and the adjoining properties, was to be £250,000. As yet the name of the new company had not been mentioned, but he was informed by Mr. Watkins, the secretary of the Gold Fields Company, that it was to be the Simmer and Jack Gold Mining Company, as at present. The proposal was to amalgamate this property with the adjoining claims on the east, of equal area with their own, and a large block of claims lying to the south, making the largest area of any mining property in the Witwatersrandt district. It amounted to 900 odd claims, and the area would total nearly 1100 acres. The shareholders in this company would not be in any way shareholders in the Consolidated Gold Fields, but only in the Simmer and Jack, provided the latter company took the property over. It was, in fact, merely an option to the other company to take them over on the terms mentioned.

Mr. GILMAN asked whether it was not the case that the Simmer and Jack had been absorbed by the Consolidated Gold Fields.

The CHAIRMAN did not understand this to have been the case. The Simmer and Jack had the right to increase their capital to the amount mentioned and to take in these properties, as was shown by the last published report of the Simmer and Jack, dated May 31. That report said:—"Your directors are now in a position to place the whole scheme before you, together with the figures, which are as follows: The capital of the Simmer and Jack Gold Mining Company (Limited) to be increased to the sum of £250,000 by the creation of 165,000 shares of the nominal value of £1 sterling each, the capital to be apportioned as follows:—To the Simmer and Jack Gold Mining Company (Limited), for their present holding, representing their present property—claims, deep level claims, machinery, and other assets of the company, 107,000 shares]; to the Consolidated Gold Fields of South Africa (Limited), for the following properties—namely (a) block of 67·3 claims, known as the Consolidated Deep Level Block; (b) block of 177·5 claims, known as the Salmon Block; (c) block of 9·5 claims, known as McNellan and Smith's claims; (d) block of 229 claims and two water rights, known as the Rand Victoria Mines; (e) block of 66 claims and all other assets belonging to the South Simmer and Jack Gold Mining Company, making a total of 549·3 claims and two water rights, 98,000 shares; for working capital guaranteed by the Consolidated Gold Fields of South Africa (Limited), at £6 per share, to be offered *pro rata* to shareholders of the new company, at £6, 45,000 shares; total, 250,000 shares."

A SHAREHOLDER enquired how the proposed amalgamation would affect the present price of the South Simmer and Jack shares.

Mr. TAPP, in seconding the resolution, said that, under the arrangement, their shares would be worth a minimum of 33s., for this reason. They were to get 33,000 shares in the new company for their 120,000 shares. The Gold Fields guaranteed the new capital at £6 per share, and as the market price of the present Simmer and Jack shares was considerably over that amount, being more than 7½, it was quite clear that the South Simmer and Jack shareholders would be able to sell their new shares for at least £6, which was exactly 33s. for their present shares. This arrangement would relieve them of finding the large amount of working capital which they would otherwise have had to find, and put them into combination with a very strong syndicate of financiers, It was open to them, when the arrangement had been carried through, to sell their shares and to realise their profit, or to keep their interest in the Simmer and Jack by joining a large combination.

The CHAIRMAN then put the resolution, which was carried unanimously, and the proceedings terminated with a hearty vote of thanks to the Chairman for presiding.

NEW SPES BONA GOLD MINING COMPANY, LIMITED.

Reconstruction agreed upon.—The terms of the agreement.

A meeting of shareholders in the New Spes Bona Gold Mining Company was held at Liverpool, on Wednesday, to consider the terms for reconstruction proposed by Messrs. Barnato Brothers, of London.

Mr. S. C. BRADSHAW, who presided, explained the clauses of the agreement of reconstruction. These recited the registration of the old company, the issued capital, the special resolutions to wind up and reconstruct the old company, and that the new company is intended to be incorporated with Articles of Association, which have been proved, and which provide that the new company shall adopt and carry into effect the agreement made. The first clause was that the old company and its liquidator should sell to the new company all the property, &c., except about £700 in the bank, subject to mortgages, &c. The conditions in the other clauses were that the new company was to discharge all liabilities of the old company in South Africa, which are not to exceed £43,000 plus the liability, if any, to the South African Gold Recovery Company and £350 estimated liabilities in England. Every member of the old company will be entitled to request allotment of share for share in the newly-formed company, with 10s. credited as paid up, the balance of 10s. per share being made payable to the new company's bankers in England as follows:—2s. on application, 2s. on allotment, 2s. one month after allotment, 2s. two months after, and 2s. three months after. If the whole of the 113,701 shares be not taken up by the members within the time fixed, 21 days in this country, two months as regards South Africa, Messrs. Barnato, Drapers'-gardens, London, will take them within three days. If this firm make default in taking up the 113,701 shares, or any number unapplied for within the three days they have agreed to pay to the company's bankers in England £56,850 10s., or such sum as may represent 10s. per share on the shares unapplied for. Immediately when the 113,701 shares are subscribed for it is agreed that the new company shall allot to Messrs. Barnato 7016 fully paid up shares. The remaining 29,193 shares are not to be issued at less than par value.

In answer to Mr. S. WILLIAMSON, M.P., the CHAIRMAN said it was practically liquidation under compulsion. If the shareholders did not take up the shares they went into the hands of Barnato Bros., subject to a liability of 10s. in the pound.

On the motion of the CHAIRMAN, seconded by Mr. R. R. LOCKETT, it was agreed to reconstruct the company, and to devote the £700 in the bank to paying 150 guineas to the liquidator, and the balance to the directors for their services during the past five years.

CENTRAL AFRICAN AND ZOUTPANSBERG EXPLORATION COMPANY, LIMITED.

Reconstruction confirmed.—The late Captain Cameron.

An extraordinary general meeting of the shareholders in the Central African and Zoutpansberg Exploration Company (Limited) was held on Thursday, at the Cannon-street Hotel, for the purpose of considering, and, if thought advisable, confirming a resolution previously passed, winding up the company; and, further, to consider a proposal to make a grant of shares in the Oceana Company to Mrs. Verney Lovett Cameron, in recognition of the services rendered by her husband, the late Captain Verney Lovett Cameron, R.N.—Mr. F. A. GILLAN presided.

The SECRETARY *pro tem.* (Mr. F. Kerr) read the notice convening the meeting.

The CHAIRMAN formally moved the confirmation of the resolutions, which was seconded by Mr. STRETTLE, and carried unanimously.

Mr. CURWEN SISTERSON then said; Gentlemen, you have received notice of the resolution granting some Oceana shares to the widow of the late Chairman of this company—Captain Lovett Cameron—and before making any remarks in support of it, I will formally move the resolution I propose to submit, which is as follows:—

> That providing there be a sufficient margin in hand after distributing the Oceana shares among the shareholders, at the rate of two Oceana shares for 15 Central African shares, the liquidators be directed to transfer to Mrs. Cameron, widow of the late Captain Lovett Cameron, R.N., C.B., 1000 Oceana shares, in recognition of the services rendered to this company by her late husband in the conduct of its business.

Now, gentlemen, in moving this resolution, which I trust will be carried unanimously, and without opposition, I should like to say I am moving it with the assent and approbation of the great majority of the shareholders in this company. Since my name has been attached to the resolution several shareholders have visited me and have suggested that some other means might be devised for showing our appreciation of the services of the late Captain Cameron; but when I have pointed out that it was almost impossible with so large a body of shareholders to communicate with them individually all those gentlemen have now readily assented to the suggestion which I now make. Were it not the fact that this proposal in no way affects the interests of the shareholders in the Central African Company I might not be prepared to move this resolution; but when I find that it simply comes to something like a farthing per share, I feel perfectly sure that the interests of the shareholders will in no way suffer. They will get their *pro rata* of shares as agreed, viz.:—Two Oceana for 15 Zoutpansberg shares, and, in the event of any balance remaining, as it is possible there may be, I feel sure the large-hearted spirit which has always prevailed amongst gentlemen will suggest to the shareholders the advisability of doing something for the widow of so great and distinguished a man as Captain Cameron. Unfortunately, like many able men, Captain Cameron died in almost absolute poverty; but when a man has presided over a company like this in days of ill-fortune, and has done his very uttermost for it during his lifetime, surely it is almost a duty upon the shareholders to do something for the widow at his death. I trust, gentlemen, that in these days of a very keen commercial spirit, we, who come into the City of London to make money, may pause and think of the widow in her affliction. In voting for the resolution which I have moved, I can assure the shareholders they will not in any way act antagonistically to their interests, but will be doing a kind and Christian act to the widow of a great and distinguished man—an act which will be fully appreciated and will occasion infinite gratitude. (Applause.)

Mr. KEKEWICH, in seconding the motion, said that the sole objection to the resolution had been removed by the provision that the shares should not be handed over until the shareholders had received theirs. Calculations differed as to the precise amount which the shares would represent, but he believed it would work out at under 10s. a hundred shares. For the larger shareholders the sum might amount to a pound or two, but for the greater number the amount would be quite infinitesimal. (Applause.)

Mr. SEAL said that as he was the only shareholder who at the recent meeting had made any observations at all opposed to the idea it was perhaps due to the meeting that he should say a few words. Since they last met he had gone to some trouble in the matter, and it seemed to him that there were two grounds upon which the resolution could be supported, first because Captain Cameron had rendered special services to the company by close application to its affairs in times of difficulty; and, secondly, because of the smallness of the contribution it was proposed to make. This being so he heartily supported the proposal.

The motion was then put and carried unanimously, and the meeting terminated with a vote of thanks to the Chairman.

THE STEEL COMPANY OF SCOTLAND.

An anxious year.—Economies effected.

The annual general meeting of the Steel Company of Scotland (Limited) was held on Tuesday, in the Religious Institution Rooms, Glasgow, Sir CHARLES TENNANT, Bart., of The Glen, presiding.

The CHAIRMAN said:—The past financial year was one, as you are well aware, of continued anxiety. There was sufficient cause for this in the extreme depression in the steel trade. Throughout a large portion of the year there was a great scarcity of work, and the competition for such orders as were in the market was very keen, and tended to keep prices at a most unremunerative level. When, towards the end of 1893, there was an improvement in demand it was accompanied by an advance in the price of raw materials which more than counterbalanced the slight increase in price which had been obtained for the finished products. These conditions—want of full employment and the cost of raw materials—rendered it certain that the best we could hope for was to pass through this time of serious depression without making a loss. This was our hope and aim, and would have been accomplished had it not been for extraneous causes. For, notwithstanding the extreme depression in prices realised for our products—which, as the report says, were the lowest in the company's experience—the economies and improvements in practice which have been effected have enabled us to secure considerable reduction on cost of production. More would have been accomplished in this respect if circumstances had allowed, and when work is resumed further economies will be at once realised, and these will be extended and increased as time passes, for attention is being steadily, constantly, and successfully given to these points. But your directors have not only had to contend with circumstances induced by extreme depression in trade; added to these difficulties have been those due to the industrial war in the coal trade. The effects of this deplorable strife have been felt disastrously by all the industries of the country, and especially by the iron and steel trades. The coal strike in the Midland Counties of England, which lasted from July to November, 1893, had the effect of raising the price of fuel in this district to a point which made the manufacture of steel wholly unprofitable, and, to further aggravate the position, no sooner had the strike in England terminated than we had a strike of coal miners in this district, resulting in the entire stoppage of the works for a month, and now we have again been stopped by a similar cause since June of this year. As will be seen by a reference to the report, these strikes cost us directly through increased cost of fuel a sum of £18,000. This, however, does not by any means show the full extent of the loss sustained by the company as a consequence of these strikes, for in addition to the extra price of fuel we had to pay an increased price for pig iron and other raw materials, and during the continuance of the strike had to draw our supplies of pig iron largely from England. Further, the indirect loss to the company due to the inferior quality of fuel obtained was considerable, and was increased by the loss sustained through the enforced stoppages in November of last year and June of this. Because of the scarcity of work and the keen competition for orders by manufacturers here and in the North of England it was impossible to obtain a price that would even cover the extra cost of raw material, not to mention these heavy additional charges. What has been said, however, will show that but for the unfortunate troubles in the coal trade, the result of the year's operations would have been very different. It is most unfortunate that these troubles have not yet ceased, and that in consequence of the present strike work in all departments at Hallside and Blochairn (with the exception of Hallside Steel Foundry) has been entirely suspended. On account of this stoppage we have reduced our oncost staff and curtailed expenses in every department, so as to minimise the loss as much as possible. We have a fairly good book of orders on hand, and although prices are not such as we would desire, still, with care and economy and a satisfactory termination of the coal troubles, we may hope soon to wipe off the adverse balance standing against us. The figures on both sides of the balance sheet speak for themselves, and do not call for any special observations. The plant and works are all in excellent repair, and with business in a normal condition we have nothing to fear. The high character of our products remains unimpaired, and our manager, Mr. Riley, and our staff have given unremitting attention to the interests of the company, which your directors have great pleasure in acknowledging. The Chairman concluded by moving the adoption of the report and accounts.

Mr. LORIMER seconded the motion, which was unanimously carried.

Mr. ROBERT IZATT regretted the position of the company, but expressed his full confidence in the zeal and ability of the board.

Sir Charles Tennant and Mr. James Cooper were re-elected as directors of the company.

An extraordinary general meeting was subsequently held.

Sir CHARLES TENNANT stated the object of the meeting, and moved:—

> That the directors be and they are authorised to raise and borrow the sum of £250,00 , for the purpose of paying off the outstanding debentures issued by the company, pursuant to the special resolutions of the 28th of August, 1873, and of the 27th of October 1880, and for the general purposes of the company; and that such sum be secured as follows, viz., by an issue of £150,000 Five per Cent. A debenture stock, to be constituted and secured as a first charge, by conveyance and trust deed, in terms of the drafts submitted to this meeting; and by an issue of £100,000 Six per Cent. B debenture stock, to be constituted and secured as a second charge by the said conveyance and trust deed.

He explained that the present directors had frequently experienced great anxiety and difficulty from the falling due in times of depression of the matured debentures, and upon that account the board had resolved to replace the present issue of debenture bonds by the issue of a mortgage debenture stock. The stock proposed to be issued would be £150,000 mortgage debenture stock (to be known as A stock), which shall bear interest at the rate of 5 per cent. per annum and be a first charge on the whole of the company's lands, dwelling houses, fixed plant, and machinery, and £100,000 stock (to be known as B stock), bearing interest at the rate of 6 per cent., and forming a second charge over the lands, &c. In conclusion, the

Chairman expressed the hope that the stock would be taken by the shareholders of the company, and that they would loyally support the board.

Mr. COUPER seconded the resolution.

The CHAIRMAN, in answer to questions, said the stock would unify the whole of the borrowed money. It was not yet decided when the issue would be made.

The motion was then put and carried.

A cordial vote of thanks to the Chairman and board concluded the proceedings.

THE MEXICAN EXPLORATIONS, LIMITED.

The Tominil Mines.—A satisfactory state of finances.

The ordinary general meeting of the shareholders in the Mexican Explorations (Limited) was held on Thursday, at Winchester House, the chair being occupied by Mr. C. G BOXALL.

The SECRETARY (Mr. G. E. Martin) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, I am about to move the adoption of the report and the audited balance sheet for 1893. I hope another time it will not be necessary to leave it so late in the year before placing before you the accounts up to the previous Dec. 31. This was occasioned mainly by what took place at the time when business was being actively proceeded with in Mexico, and when it was desirable to allow three or four months to elapse between the reception of the report and the calling of the meeting—an arrangement which has been continued up to now, but which will not be observed again. With regard to the second paragraph in the report, referring to the resignation of Mr. J. F. Haigh, we do not propose that this vacancy should be filled up. As to the remaining directors, their names will be brought before you for re-election. We have not seen so much of Mr. Reid as we could have wished, but he represents a considerable section of shareholders in the Midlands and the North, and when he is with us he is always extremely useful. Of Mr. Goldney I cannot speak with too high a praise. He is a member of the Stock Exchange, and it is in many ways inconvenient for him to be on the board, but he has helped us with the very greatest assiduity, and I am satisfied it would be impossible to find among the proprietors a more excellent and painstaking director than he. (Hear, hear.) The question of the writing down of investments was alluded to at great length last year, and the writing down has merely been carried out in accordance with the arrangement then decided upon. I may mention that in addition to those which we particularly referred to last year, we have slightly increased the value of the ordinary shares of the French Mexican in consequence of the way in which the litigation is working out. With regard to the Palmarejo debentures, of which we hold so large a proportion, over 25,000, we have taken these at the cost price, which is well under par. In regard to the second debentures in the Palmarejo, we have written down our holding, which was a small one. It stood at £1050, and we have now written it down to £500. The ordinary shares we have written down to nominal amounts. In the Mexican Property Syndicate our holding (£5000) remains the same, and we have written it down considerably. With regard to the Western and General Development Syndicate, that was a company which was brought out to promote the Tominil Mines, and our holding in that we have written down from £8500 to something like £500. We have also written down the Mexican Mineral Railway second debentures to an amount equivalent to the value of the Palmarejo second debentures. Our shares in the Tominil Mines, as you were made aware by last year's discussion and report, represent no value at all. The writing away of that nominal asset represented a great deal of the reduction of the assets generally. I don't think we have overdone the writing down, but I think, on the whole, it has been fair, business-like, and reasonable. The next paragraph in the report runs:—"It will be remembered that the company was at the date of the last report resisting an alleged liability for a sum of £26,120 upon shares in the Tominil Mines (Limited). This liability has already been materially diminished by various steps taken by your directors, but they have not yet succeeded in finally closing the matter. A special report dealing with the connection of the company with the Tominil Mines (Limited) will be submitted to the shareholders as soon as circumstances permit." I am not sure that circumstances would not permit of my making a special report dealing with the connection of our company with the Tominil Mines, but it is, perhaps, best that I should not say more than a very little until a few more weeks have passed. I may, however, tell you what we have done. Our liability was £26,120, and our liability remains at £26,120; but if we ever have to pay that a considerable part—over £20,000, or about that—will come back again to us. The liability remains, but we have acquired at a nominal price so large a proportion of the share capital that any call made for the purpose of equalisation will result in the money paid coming back to us again. This is a distinct advance, and has been carried through in the face of a good many difficulties. I regret that I am unable to tell you that the Tominil liquidation is absolutely at an end. It is at an end so far as the *bona fide* investors in the company are concerned, and equally at an end so far as creditors are concerned. There are still a few gentlemen remaining formerly either directors of the Tominil Mines or of one of the prominent companies; but, with one exception, there will be no difficulty with these gentlemen. The Chairman then proceeded to describe some negotiations which had been entered into with a Mr. Chapman, one of the vendors, who still had a holding in the company, and with whom no settlement had been arrived at. Continuing, he said: We will make no more offers to Mr. Chapman. We cannot have any sympathy with him now, and I hope you will support the board in resisting any attempt to obtain a shilling more in respect of his holding. (Hear, hear.) If we are successful, you will be able to wipe away the Tominil altogether. In my report last year, I called attention to the fact that the Palmarejo Company had fulfilled all its obligations, while up to that date it had received no income from the mine. During the past year it has received an income from the mines, but it has not fulfilled its obligations with that promptitude and willingness which was showed when it had no income. At present they are in our debt, but I think that as we have never been called upon to pay anything for Palmarejo, and as they have paid a considerable sum of money in income as commission for our guarantee and for bonds, it would be ungenerous of us to add to their difficulties by hastily pressing for the immediate fulfilment of their obligation. Of course the coupons must be paid on our debentures but we have a very large holding, and we think we had better deal fairly easily with the Palmarejo Company. If, however, we find the proprietors or board of that company are oblivious to the obligations which they have towards us, and are using their income either to discharge encumbrances which rank below ours, or in exaggerated expenditure, then we must take the course open to us as guarantors of the debenture issue. We cannot help feeling for the men connected with the Palmarejo Company, who have for five or six years worked very earnestly and perseveringly, without any income, and now that they are just commencing to get some return, to deal harshly with them is a course which does not recommend itself to us. (Hear, hear.) Passing on to the more satisfactory items of the balance sheet, which show how the work has been carried on here, I may point out that we owe our bankers nothing, that we owe nothing worth mentioning to creditors, and that we have got no debentures or floating charges. Beyond that we have settled all our litigation except over the Tominil, and I have not the slightest doubt that that matter is nearer settlement than ever before. With the approval of the board I have mentioned the feelings we entertain towards Mr. Aylward, the company's solicitor, whose staff have worked admirably for us, as none but a board situated in difficulties as we have been can have fully appreciated. We hope that next year the legal expenses may be nothing like what they have been in the past. The rest of the paragraphs in the report relate to the development of economies, and the details are certainly interesting. I shall be very pleased to answer any questions upon those or other matters. In conclusion, I beg to move the adoption of the report and accounts.

Major C. J. EASTON seconded the motion.

A SHAREHOLDER enquired whether the Official Receiver had placed any value on the Tominil Mines.

The CHAIRMAN replied that he had directed a Mr. Schneider to report upon it; but as yet, so far as he knew, this gentleman had not arrived there.

The motion was then put and carried unanimously.

On the motion of Mr. MARSH, the retiring directors, Mr. J. C. Reid and Mr. T. Goldney, were re-elected.

The auditors, Messrs. Martin and Farlow, were re-appointed upon the motion of Mr. WESTON.

Mr. J. C. REID referred in terms of high praise to the indefatigable energy which the Chairman devoted to the interests of the company, and said it was quite impossible for the shareholders to repay the obligation which he had put upon them. The time would soon come, he thought, when they would be able to undertake some legitimate business. They were, however, somewhat hampered by one of the Articles of Association, which expressly restricted the affairs of the company to Mexico. He had, therefore, to suggest that a special meeting should be called for the purpose of considering the advisability of making some alteration in this.

The CHAIRMAN added a few words, saying that the board would never accept any great risk in connection with any outside business; but under the present articles they were prohibited even from introducing any concern not within the confines of Mexico.

Eventually a resolution was passed, authorising the calling of a special meeting to consider the matter.

The proceedings terminated with a vote of thanks to the Chairman.

MINING IN CORNWALL AND DEVON:

NOTES ON WESTERN MINING, EDITORIAL AND OTHERWISE.

(BY OUR SPECIAL CORRESPONDENT.)

THE impetus which the advance in the price of tin gave to the Cornish share market a few weeks ago has, unfortunately, been very short lived, and things in the Exchange seem to be quite as dull and flat as ever they were. Prices are a little better, it is true, but the volume of business is still insignificant. The spurt was caused almost solely by the few outside orders which were placed on the market, and when these were completed things again sank back to their previous level. Speculators are still very shy as a natural result of the unsettled position of tin, and until there is some evidence of a permanency in the advance people are not likely to buy very largely. We are not sure that this is a wise policy, because, as was shown only a few weeks ago, the moment the demand for stocks sets in shares are so sensitive that it is then difficult to obtain them at any price. We still think that if speculators would make a wise selection of the mines in which they believe there is the greatest chance of success, and will pick up what loose stock there is to be obtained, they will see a far greater return for their outlay than if they wait until prices begin to move.

AT South Frances meeting, on Thursday, there was again a heavy loss, and a call of 10s. a share was necessary to meet it. The fact that they sold 220 tons of tin, and yet made a very heavy loss, shows the straits to which Cornish mines are reduced as a result of the deplorable depression in the metal market. With an extra £10 per ton, which would even then be below the average of the last twenty years, South Frances shareholders would have the satisfaction of taking up a dividend. It must be remembered that at this mine they are doing a very large amount of development, the cost of which is estimated at about £1,000 per month, so that had even this been temporarily stopped during the bad times there would have been no loss. Such a policy, however, would have been a penny wise and pound foolish one. A suggestion was made at the meeting that the mineral should for the time be kept on stock, but the proposal was coldly received. It is at best a very risky policy to adopt, and an instance of its having been attended with really substantial success is still to seek.

THE payment of £40 on dues to Mr. S. Aubyn was resented by some of the shareholders, and the matter has been fought out before with the lord, and although the other lords of the mine have remitted their portions, Mr. St. Aubyn has not yet seen his way to follow their example.

THE set of adventurers who are working the small concern known as Pick of Mines, St. Enoder, in the eastern part of the county, seem determined to develop the property thoroughly. It is as yet very shallow, but arrangements are being made for the erection of a pumping engine by which the mine will be drained, and opportunity given to resume sinking. It is said that about £1000 worth of mineral has already been sold, and that it is of such high quality as to fetch the best price in the county. We hope sincerely that the anticipations of the shareholders will be fully realised, as the success of this enterprise would give fresh impetus to the industry in a district whence it has in recent years all but vanished.

SHAREHOLDERS in Cornish mines, who have naturally been alarmed at the recent lawsuit between two important mines as to an alleged encroachment, will be glad to know that the similar dispute between the two longest surviving St. Agnes mines has been amicably and satisfactorily settled. From the terms of the settlement Wheal Kitty is evidently the offender, for the executive has consented to pay £150 down to West Kitty and 11 guineas a month for so long a time as the water goes back to that mine.

AT Wheal Agar the Tuckingmill Foundry Company, which has undertaken the development of the bottom of the mine, is progressing very rapidly with the preliminary arrangements. The engine is in course of erection, and it is anticipated that within the next three weeks or a month they will be in a position to commence work underground.

THE members of the South Wales Institute of Engineers, to the number of about 50, have been combining business and pleasure during the week in the mining districts of Cornwall. On Tuesday they visited Camborne, where the engineering and rock drill works of Messrs. Holman Brothers and Dolcoath Mine were inspected. At Dolcoath Captain Josiah Thomas read a short paper dealing particularly with the history of the mine, and the visitors were subsequently entertained to luncheon in the account house by the council of the Mining Association and Institute of Cornwall, who had grateful recollections of the hospitality which was extended to them in Wales a few years ago. The afternoon was spent in a drive round the district. On Wednesday the St. Just mining district was inspected, a special visit being paid to the famous Botallack Mine. The tour also included trips to the Lizard and the Phœnix Mines at Liskeard.

THE African Gold Recovery Company (Limited) announce that 56,258 ounces of gold have been recovered at the Randt, and 8000 ounces in other districts. Total, 64,258 ounces during August by means of their MacArthur-Forrest cyanide process. The July total was 57,500 ounces.

THE revision of the mining laws for Mashonaland and Matabeleland has, it is stated, been completed by the Administrator, Messrs. John Hays Hammond, and Wilson Fox. An Order in Council by the Secretary of State for the Colonies is, however, necessary before the said laws can come into operation.

MINERAL RESOURCES OF THE UNITED STATES.

IRON AND STEEL.

Progress of the Iron and Steel Industries of the United States in 1892 and 1893.*

By JAMES M. SWANK,
General Manager of the American Iron and Steel Association.

IN 1891 and 1892 our iron and steel industries were very actively employed, although prices slowly but steadily declined. In the latter year we made almost as much pig iron as in 1890. But in 1893 all the industries of the country were subjected to a great strain, owing to the financial panic of that year, and our iron and steel industries were conspicuously and most injuriously affected by the prevailing depression. In the production of iron ore, pig iron, steel in various forms, rolled iron and steel, and the more finished forms of iron and steel, there were over 100 financial failures during the year. Scarcely a week passed when the announcement was not made of the passage into the hands of receivers or assignees of one or more enterprises of the character above indicated. While the record of failures in the iron trade thus far in 1894 is much smaller than in any period of equal length in 1893, the interruption to the prosperity of our iron and steel industries, which began early in 1893, still continues. Production in 1893, and up the present time in 1894, has been greatly below the average of immediately preceding years, while prices have been much lower in the early months of the present year than at any time in 1893, low as they then were. Prices of all kinds of iron and steel have never been so low in this country as during the last 12 months. There are some indications, however, that the general list of prices will rise in 1894 as the result of the scarcity of some products, caused by the inability of many manufacturers to continue production at the prices which have been prevailing, and also by the refusal of coal miners and coke workers to work at current wages, thus largely cutting off the supply of both coal and coke, and compelling many furnaces, steel works, and rolling mills to suspend operations. The prices of Bessemer pig iron and billets have materially advanced during the present month of May.

Iron and Steel Works in the United States in 1894.—The depression in the iron trade of this country in 1893 and thus far in 1894 was preceded by great activity in 1892 in the enlargement of old plants and in the erection of new plants, the most noticeable activity being in the erection of tin-plate works and in the extension of our facilities for the rolling of fine sheets for tinning and terne plating. This particular activity had commenced in 1891, after the passage of the tariff of 1890, and it was continued in 1893 notwithstanding the depression, but in the year last mentioned very little progress was made in the building of any other iron or steel works.

The American Iron and Steel Association has just published a new edition of its "Directory to the Iron and Steel Works of the United States," the information contained in its pages being brought down to the early months of 1894.

The following extracts from the preface to the Directory exhibit the progress that has been made from January, 1892, to January, 1894, in the perfection of our facilities for the manufacture of all the iron and steel products:—

Blast Furnaces.—In the edition of the Directory for 1892 there were enumerated and described 569 completed blast furnaces and 11 which were in course of erection. The total annual capacity of the completed furnaces was 14,550,708 long tons. In the present edition we enumerate and describe 519 completed furnaces, with an aggregate annual capacity of 16,271,027 long tons, or just 50 furnaces less than in 1892, and seven furnaces which have been partly erected but upon which work has been suspended. Not one new furnace in the United States is now being built—a remarkable circumstance. Since the appearance of the Directory in February, 1892, there have been built 16 new furnaces, and in the present edition we have transferred to the abandoned list 66 furnaces which were classed in 1892 among the furnaces that were then active or likely to be active at some future time.

Of the 66 furnaces now transferred to the abandoned list 20 are in Pennsylvania, 11 in New York, 7 in Ohio, 6 in Virginia, 4 in Tennessee, 3 each in Michigan and Missouri, 2 each in Connecticut, Maryland, and Alabama, and 1 each in Maine, New Jersey, Kentucky, Georgia, Illinois, and Wisconsin. Of the 16 new furnaces built since January, 1892, 7 are in Tennessee, 5 in Virginia, and 1 each in New York, North Carolina, Alabama, and Wisconsin. It is a curious fact that since January, 1892, 20 furnaces have been abandoned in Pennsylvania, and not one furnace has been built in that State. Of the 7 furnaces upon which work has been suspended, 2 are in Alabama, 2 in Wisconsin, and 1 each in Pennsylvania, Virginia and Tennessee.

Of the 519 furnaces described in the present Directory 118 use charcoal as fuel, and the remainder use anthracite and bituminous coal and coke. In the Directory for 1892, the number of charcoal furnaces described was 128, or just 20 more than in 1894. The number of anthracite and bituminous furnaces described in 1892 was 431, and in 1894 the number is 401, or 30 less than in 1892. It will be seen that the number of charcal furnaces has decreased in two years proportionately much more than the number of furnaces using mineral fuel.

The average annual capacity of the 569 completed furnaces which were described in the Directory for 1892 was 25,572 long tons, and the average annual capacity of the 519 furnaces which are described in the present edition is 31,351 long tons.

The aggregate annual capacity of the 519 completed furnaces which are now described is 1,720,319 tons more than the capacity of the 569 completed furnaces which were described in January, 1892. The total annual capacity of the 118 charcoal furnaces which are described in the present Directory is 1,285,440 long tons, and the total annual capacity of the 138 charcoal furnaces which were described in 1892 was 1,254,375 long tons. It will be noted that, while the aggregate furnace capacity of the country increased 1,720,319 tons from 1892 to 1894, that of the charcoal furnaces alone increased only 31,065 tons.

The average annual capacity of the charcoal furnaces described in 1892 was 9090 long tons, and the average annual capacity of the charcoal furnaces described in 1894 is 10,894 long tons. The average annual capacity of all the furnaces using mineral fuel in 1892 was 30,850 long tons, and the average annual capacity of all the mineral fuel furnaces in 1894 is 37,371 long tons.

Rolling Mills and Steel Works.—In the present edition of the Directory we enumerate and describe 487 completed rolling mills and steel works in the United States, of which 446 contain trains of rolls and 41 have no rolls. In the edition of two years ago we described 460 completed rolling mills and steel works. In the intervening time 57 new rolling mills and steel works have been built, 1 has been revived, and 31 have been abandoned, the net increase in the period mentioned being 27. In

* Contributed to the United States Geological Survey.

January, 1894, there were 8 rolling mills and steel plants in course of erection and 1 rebuilding, against a total of 18 works which were in course of erection at the beginning of 1892.

Puddling Furnaces.—The number of puddling furnaces attached to rolling mills in January, 1894, each double furnace being regarded as the equivalent of two single furnaces, was 4715 against 5120 in January, 1892, a decrease of 405 furnaces, or about 8 per cent. This is the first edition of the Directory in late years that has noted a decrease in the number of puddling furnaces, each previous edition having noted an increase.

Bessemer Steel Works.—Since the appearance of our last Directory we have built 4 new standard Bessemer steel plants—one at Garwood, New Jersey, to make steel car wheels, but which has recently been abandoned; one at Shenango, Pennsylvania, to make steel billets; one at McKeesport, Pennsylvania, to make steel slabs and billets; and one at Indianapolis, Indiana, to make steel bars and miscellaneous shapes. In the same time 7 standard Bessemer steel plants have been burned or abandoned—2 in Massachusetts, 1 in New Jersey, 1 in Tennessee, 2 in Illinois, and 1 in Missouri, and in the same period 1 Clap-Griffiths steel plant has been abandoned. We now have 43 standard Bessemer plants, with 95 converters, against 46 in 1892, with 95 converters. One new standard Bessemer plant is being erected at Youngstown, Ohio, to contain two 10 long ton converters, for the production of rails, structural shapes, &c. The construction of one 4 long ton converter for the production of castings was commenced at Sharon, Pennsylvania, in 1891, but work upon it has been suspended. In addition to the Bessemer plants above mentioned we now have four Clapp-Griffiths and four Robert-Bessemer steel plants, the former with seven converters, and the latter with six converters. No new Clapp-Griffiths or Robert-Bessemer plants have been built since 1889.

The annual converting capacity of all the standard Bessemer steel plants in 1894, built and building, is 7,740,900 long tons of ingots and direct castings, against 5,857,143 tons in January, 1892. These figures exhibit a remarkable increase in converting capacity in two years. While the demand for steel rails of standard sections for steam railroads has greatly fallen off in recent years, the demand for Bessemer steel for girder rails for street railways, structural shapes, axles, springs, wire rods, and many other miscellaneous uses has greatly increased. The production of Bessemer billets, slabs, and blooms to supply these uses has greatly interfered with the demand for puddled iron.

Open-hearth Steel.—Since the appearance of the Directory for 1892 we have built 15 new open-hearth steel plants, while five have been burned or abandoned, showing a net increase of 10 plants. We have now 81 completed open-hearth steel plants, and in addition 1 new plant is in course of erection at Chicago by the Illinois Steel Company.

The annual capacity in ingots and direct castings of the open-hearth steel plants in 1894, built and building, is 1,740,000 long tons, against 1,383,929 tons in January, 1892. These figures show a very healthy growth in two years. There has been in the last few years an increased demand in this country for open-hearth steel for boiler plates and ship plates, armour plates, gun forgings for the army and navy, heavy and light castings, locomotive tires, tools, structural shapes, machinery generally, and many other purposes. Like Bessemer steel, open-hearth steel has become a formidable competitor of puddled iron. But the open-hearth is also a formidable competitor of iron foundries. In 1892 there were 18 open-hearth plants which made direct castings, and in 1894 there are 28 plants which are prepared to make these castings.

Basic Steel.—The manufacture of basic steel in this country is virtually confined to 4 works in Pennsylvania, 3 using the open-hearth and 1 using the Bessemer process. Outside the Pennsylvania basic steel has been made only experimentally or on a very small scale. The industry has made no progress in the south.

Crucible Steel Works.—Three more crucible plants are enumerated in the present edition than in the edition of two years ago, 4 plants having been abandoned in the meantime, and 7 having been built. We now have 48 completed crucible steel plants and 1 in course of erection, against 45 completed and 1 buildings two years ago.

Cut-nail Machines.—In January, 1892, there were 65 rolling mills, which were devoted in whole or in part to the manufacture of cut nails and spikes, and which contained 5546 nail machines. In January, 1894, the number of rolling mills which manufactured cut nails and spikes was 55, with 5094 nail machines. These figures show a decrease of 452 cut nail machines in two years. The Directory of 1892 showed a decrease of 520 cut nail machines from 1889 to 1892.

Wire Rods and Wire.—There are now in this country 23 works which roll iron or steel wire rods, and we have 64 completed iron or steel wire drawing plants and one additional plant in course of erection.

Wire Nail Works.—In the Directory for 1892 we enumerated 49 completed wire nail works and two additional works in course of erection. In the present edition we enumerate 54 completed wire nail works and one partly erected works, located in 17 States. Their average capacity is much greater than that of the works described two years ago.

Tin-plate Works.—In the Directory for 1892 we enumerated and described 20 works, which were either making or were prepared to make tin-plates or terne plates, and 10 additional tin-plate works which were in course of erection. In the present edition we describe 56 completed, two building, and one partly erected tin-plate works. Nearly all of these works have been built since the passage of the McKinley Tariff Act in 1890.

Forges and Bloomaries.—Under this classification we enumerate only the works which make wrought iron direct from the ore and works which make blooms from pig iron or scrap iron for sale. Works which make blooms in connection with rolling mills, and for use exclusively in these rolling mills, are not separately classified, as they are auxiliary and not independent enterprises. In the Directory for 1892 we enumerate 30 forges and bloomaries, and we now enumerate 25.

Natural Gas.—Natural gas is still used in a large number of our rolling mills and steel works. In the present Directory we enumerate 79 works which use this fuel in whole or in part—42 in Allegheny county, Pennsylvania, 15 in other counties of Western Pennsylvania, 5 in Ohio, and 17 in Indiana. One works now being rebuilt in West Virginia, and two works in course of erection in Indiana will also use natural gas. In the Directory for 1892 there were enumerated 74 works which used natural gas, but their consumption of this fuel was much larger than that of the 79 works which now use it. It is only in Indiana that the consumption of natural gas has increased during the last two years. In January, 1892, only 6 works in that State used natural gas.

Production of Pig Iron in 1893.—The total production of pig iron in the United States in 1893 was 7,124,502 long tons, against 9,157,000 tons in 1892, 8,279,870 tons in 1891, and 9,202,703 tons in 1890. The production in 1893 was 2,032,498 tons, or over 22 per cent. less than in 1892. This great decline in production may be fairly said to have occurred wholly in the second half of 1893, as the production of the first half was larger than that of the second half of 1892, and almost as large as the first half of 1892.

As compared with the first half of 1893 the production in the second half of that year shows a decrease of nearly 44 per cent., the largest semi-annual decrease in production of which there is any statistical record.

Production of Bessemer Steel Ingots and Rails in 1893.—The total production of Bessemer steel ingots in the United States in 1893 was 3,215,686 long tons against 4,168,435 long tons in 1892, showing a decrease in 1893 of 952,749 tons, or over 22 per cent. The production in the last half of 1893 was a little over half the production in the first half.

The total production of Bessemer steel rails in 1893, except the comparatively small quantity of standard rails and a larger quantity of street rails which were made by manufacturers from purchased blooms, was 1,036,353 long tons against 1,458,732 long tons in 1892, a decrease of 422,379 tons, or almost 29 per cent. The production of Bessemer steel rails in 1893 was the smallest annual production since 1885.

Prices of Bessemer Steel Rails in 1892 and 1893.—The price of Bessemer steel rails at mills in Pennsylvania was $30 per long ton during the whole of 1892, and $29 during the first nine months of 1893. In October, 1893, the price fell to an average of $27·50; in November to an average of $25; and in December to $24, which is the present price.

THE EDITOR'S LETTER BOX.

*** We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders though these need not necessarily be published.*

COLON GOLD MINES, LIMITED.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—Will you kindly permit me space to reply to Mr. Lambert's letter published in your issue of June 2? What I have written in former communications I adhere to and can confirm if necessary by sworn declarations. The only modification I have to make is that instead of saying in my letter appearing on May 26 "the company's representative," it might be more exact to say "a representative of the company," for it was Señor Restrepo, of Honda (not Mr. Russell), the company's acknowledged representative (for some time previously acting in conjunction with Mr. Russell in the Colon Water Question), who, upon the Alcalde's own admission, in reply to questions put by myself in the Court House of Guayabal on September 13, 1893, had previously made him (the Alcalde) proposals of indemnification for injury done to his property by the muddying of the Sabandija, when the mine should resume work.

Acting mainly on this admission, as well as upon other grounds, I thereupon protested against this Alcalde's adjudicating in the case with the result that he there and then "excused himself" and resigned in favour of the Suplente. Why should he have done so if, as Mr. Lambert would have your readers believe, there was no foundation for what I stated? I will deal as briefly as possible later on with the personal—*i.e.*, the abusive portion of Mr. Lambert's letter (this being precisely, if any reply were forthcoming at all, what I was prepared to expect, invective being a most convenient weapon when unanswerable and unsavoury truths have to be met), and will proceed at once to correct a series of mis-statements which, if not proceeding from Mr. Lambert's forgetfulness or ignorance of the facts, would deserve a stronger epithet. He says "it is common knowledge that as soon as this company began to mine, Mr. Gledhill came down with a heavy claim for damages to his lands, and that he instigated and fomented enormous claims of a like character by his Colombian neighbours." Both these assertions are absolutely false.

What actually occurred was as follows:—When in England in 1889, it came to my knowledge that the Colon Company had recently been formed, and knowing the injurious effect the working of the mine would have upon my estate (purchased three years previously with a 40 years' clear title) some 4 square miles in extent, almost entirely under cultivation, and stocked with some hundreds of head of cattle, I wrote to the Colon Secretary, Mr. Lambert, under date July 19th, 1889, asking him to call the attention of his directors to the fact that the intended operations would most seriously damage and depreciate my property, as the great influx of debris and dirt into the Sabandija would practically destroy the utility of the river flowing through the estate dependent upon it for its water supplies, not a word being said about any claim for damage whatever. Mr. Lambert replied that he would place my letter before his directors at their next meeting. I presume he did so, and that the board considered the fact of the residents on the property, and some 600 to 700 head of cattle having filthy, slimy water to drink was a matter of too small moment to occupy their valuable time, or might be treated as a merry jest, for no further notice was taken until over a year afterwards, and then only upon protests after the mine had commenced to cause damage. I also explained the circumstances personally to a director of the Tolima (the vendor) Company, Mr. C. O. Rogers, who assured me voluntarily that if I would take no action with other landowners against the company (one of whom on a former occasion had raised opposition from the same cause), my interests would not be allowed to suffer. When I reminded a director of both companies (Mr. H. S. Sankey) three years later of this unfulfilled pledge, he replied that the former had no authority to make it, and that they could make no distinction between one proprietor more than another.

In August, 1890, the mine started working, and the hitherto limpid Sabandija was at once turned into a river of mud. I complained of the nuisance by letter to Mr. Russell, and asked him if he had received instructions from his directors. He replied that he had not, but that "Mr. Powles, who was then in London, was enquiring into the affair." I cabled to Mr. Powles, and wrote to the director first referred to, who replied that Mr. Russell would be instructed to see me and arrive at some settlement. Early in October of that year (1890) Mr. Russell came to Carolina, and at his solicitation I accompanied him to the next estate of Cajamarca, whose owner, Señor Navarro, on his own initiative, had then commenced proceedings for having the mine suspended in accordance with the law as to the supply of clean water. It was arranged at Cajamarca that Mr. Russell should return on a later day to make further investigations. A few days later (October 12) Mr. Russell wrote me that the directors had desired him to say they were willing to consider any claim for actual damage caused to my property, and wished him to examine the damages with me; that he proposed paying me another visit "to make myself more acquainted with the whole district from Guayabal downwards, and to consider with you personally the value of damage being caused." Mr. Russell fixed the date, and selected Cajamarca as the place of meeting. He afterwards changed that date for another, and, in accordance with it, Señor Navarro and myself waited the entire day, but the meeting with Mr. Russell never came off, he being prevented, as he explained afterwards, by a flooded river, and another engagement from keeping the appointment. Neither did Mr. Russell ever pay me the proposed visit to consider with me personally the damages being caused. But two or three weeks later I heard from Navarro (after my return from a journey) that Mr. Russell had offered him (Navarro—at that time the only opponent) 5 per cent. per annum on a $100,000 valuation as compensation in lieu of supplying the Cajamarca estate with clean water, which Navarro declined to accept. I told the latter that I considered Mr. Russell's offer a fair and liberal one, and on a basis such as I for my part would be willing to accept for Carolina, and asked him to reconsider the proposal. I thereupon wrote Mr. Russell that with a view to an amicable arrangement, I would accept the same 5 per cent. basis of indemnity as he had offered to Señor Navarro, and that, if he would give me authority to do so, I would see Navarro and other proprietors with the object of a settlement on the same terms.

Mr. Russell replied saying he could make no proposal for an amicable solution "on account of the action of Señor Benito Navarro," but only "proceed in conformity with the laws of the country" being "forced out of my position to offer any further proposals of any kind." Señor Navarro proceeded with, and obtained, his injunction and the mine was suspended. Whereas other suspended mines after supplying clean water resumed work, no attempt whatever had been made by the Colon Company, either to supply Navarro's or any other estate, presumably on account of the difficulty and cost of doing so. In the following year (1891) it transpired that Mr. Russell with the aid of lawyers and influential personages in Bogota, was endeavouring to obtain, administratively, and by *ex parte* representations, from the Government, a resolution favourable to the working of the mine which (if successful) would be in direct antagonism to the law relating to clean water supplies. Up to that time I had taken no action whatever against the Colon Company, but having now become more than convinced that there was no *bona fide* intention either to arrange amicably, or supply clean water if it could be avoided, I determined to remain passive no longer, but following suit in September, 1891, I applied for, and obtained, the same protection or intervention as the Colon Company's representatives have already solicited from H.M. Charge d'Affaires in Bogota, and proceeded thenceforward to defend my property and its prescriptive rights to the extent of my ability. After the complete breakdown of the Bogota proceedings, Mr. Russell solicited a renewal of proposals. These were submitted in good faith on his own original 5 per cent. basis. Mr. Lambert asks why I should resist assessment by arbitration, and gives his own answer: "Because he (Gledhill) prefers to value his farm at twice the price he paid for it."

My answer is—1st. Because the law with respect to the pollution of rivers and streams prescribes no such course as arbitration for damages, and notwithstanding Mr. Lambert's (erroneous) assertion that they obtained such a decree in Congress, and if it did I have in my last communication shown the possible and probable result of such an appeal.—2nd. Mr. Russell having failed to investigate the damage caused by the dirty water with me while opportunity existed, and he having declined up to 1891 all amicable overtures, I reserve to myself an equal right with himself "to proceed in accordance with the laws of the country." As to the value of my estate, a good deal owing to improvements I have made upon it, it is not only valued at twice, but at almost thrice its original price in Colombian currency, as proved by unsolicited cash offers made to me for it, but withdrawn in consequence of the Colon water nuisance, and of the proceedings commenced against me, only out of 17 others last September. Is any more convincing proof than this needed of the injury and depreciation caused by the Colon Company? Would beneficent Mr. Lambert or any one of his coadjutors let others gratuitously deprive him or them of the lawful bread of industry if he or they possessed the ability to defend it? Having justice and equity on his side, would he then consider it less than insolence to be told that the upholding of his vested rights was "feeding Mr. Lambert and his following with the bread of idleness?" In conclusion, it was needless for Mr. Lambert to suggest other motives for my occupying your columns from time to time than the correction and refutation of glaring misrepresentations of fact, and of cowardly charges of extortion and blackmailing promulgated against myself and others when driven at length to protect our properties from the covert evasion of an existing law. Why did not the Colon Company six years ago comply with that law and supply clean water? If that were not feasible (and this should or should not have been known from the very commencement), why did the company proceed with its operations upon an unsound, insecure, and unpractical basis? * —I am, Sir, &c.,

EDWARD GLEDHILL.

Carolina Hacienda, Honda, Republic of Colombia, South America, July 28, 1894.

* Mr. Lambert says that my postscript stating that the Governor had quashed the irregular proceedings of the local authorities was "equally imaginary." I (with the rest) am possessed of sworn testimony that at the end of March last (upon my appeal) the Governor confirmed the disqualification of the Alcalde (Señor Polecarpo Rico) to act in the matter of the dirty water of the Sabandija, and consequently all that that Alcalde had done was without force or value whatever.

MINING EXPERTS.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—The leading article on the above subject in the last number of the Journal is a most excellent one, and contains matter of the utmost importance to the investing British public. However, strongly as you describe the difficulties of an expert, I think more can be said yet to show what an arduous and undesirable profession it is becoming to honourable and intelligent men, who have sufficient experience to subordinate sanguine imagination to calm reason.

In the formation of a mining company the first elements are a mineowner, a promoter, and a syndicate. Probably the promoter has approached the mineowner, or *vice versa*. At any rate, the promoter gets a binding firm offer of the mine from the owner on the strength of his representations that he can form a company in England to work the mine. Of course, here the promoter appears as the vendor, and places a price on the mine at least double what he will eventually pay to the real mineowner. The next step is to get some influential men to take an interest in the venture either as a syndicate or as directors, &c., so as to issue the shares to the gullible British public. It is at this stage that the wretched mining expert comes in. He is sent out to some almost inaccessible part of the world where he has to struggle with unmanageable, hard mouthed, and hard backed quadrupeds for riding purposes; with gesticulating suspicious natives, or gloomy, silent, revolver-using pioneers of civilisation; with want of provisions and even water; with insects of the most varied assortment as to size, shape, and sting, and finally, even perhaps with hostile tribes or marauding bandits. If, after overcoming these and many more difficulties, which other experts can fill up *ad lib*, the expert arrives at the mine, he finds himself surrounded by people, every one of whom is biased in favour of a sale being concluded, so that English money may circulate freely in the locality. From the promoter and the owner, down to the humblest, all want the expert to

make a glowing report on the property, and hence in many instances, recourse is had to bribery, deception, and even intimidation, when it is perceived that the expert's opinion is not favourable. Many experts, no doubt, act the hypocrite in these cases, and pretend that they never saw such a wonderfully rich mine in their lives, but even this will not protect them from guns loaded with small gold nuggets, fired into the face of a working in the mine or a subcutaneous injection syringe, with a solution of silver, deftly applied to the well-sealed bags containing carefully taken samples, said bags at the time of the operation probably filling the place of a pillow. However, let us suppose that our expert has come out safely from all this, and arrived at home, he renders a carefully thought out, sober business report. If this is favourable, he has the satisfaction of knowing that clever financiers and capitalists invariably will only believe one-half of what he says, and that he is considered half a liar, if not a whole one. If the mine is taken up and worked on his report, the chances are that the management is entrusted to one of the "cousins, sisters, or aunts" of some director, the mine turns out a failure, in the same way that a hair-dressing establishment would fail under similar management, and the poor expert is the one who bears the blame, perhaps even imperilling his reputation. If, on the other hand, his report is unfavourable and adverse to the undertaking, a perfect fury of anger overwhelms him from all sides—from mineowner, from promoter, and from syndicate, whose combination for stock speculating purposes is thereby prostrated. After, perhaps, risking his life and health, the expert is a lucky one who can get his fees paid and continue his career as a truthful, honest-minded man. Many such we know there are who have managed to survive the stormy beginnings of the career, and are now in an unassailable pinnacle, but how many honest, bright, intelligent young mining engineers have succumbed in trying to be experts, you, Mr. Editor, and I, know more than the general public imagine. Mining engineering in all its branches and expert business is a noble profession in the abstract, and it is full of life and movement, full of intellectual activity and adventure, and I loved it with my whole heart. Yet I have left it and am satisfied to earn a modest salary in a humdrum business house in England. Perhaps in some future generation, when mining becomes a real industry and not a gambling combination, experts wi l have a better chance. With your efforts the British public may open their eyes soon, but the difficulty consists in the fact that the eyes of the British public are not open to be got at for the purpose of performing the operation of opening them forcibly. The honest mining expert is the investing public's unappreciated best friend From it he should have help and encouragement; from the mine owner, the promoter, and the syndicate he cannot hope for anything.—I am, Sir, yours faithfully, EX-EXPERT.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

The Meyer and Charlton Gold Mining Company (Limited).

Report for the month of July.—Mine. Number of feet driven, sunk, and risen 673 feet. Quartz mined 4297 tons.—Mill. Number of days (24 hours) working 50 stamps 29½ days. Number of tons crushed 3940 tons. Yield in smelted gold 2182 ounces 13 dwts. 19·2 grains. Yield per ton 11 dwts. 1·911 grains. —Cyanide works. Tons of tailings treated 2918 tons. Yield in smelted gold 816 ounces. Yield per ton 5 dwts. 14·227 grains. Working cost per ton treated 6s. 0·157d.—Expenditure and revenue, working expenditure. To mining (including maintenance) £2240 14s. 1d. To transport £78 2s. 8d. To milling (including maintenance) £878 0s. 7d.—To cyanide works (including maintenance) £877 7s. 2d. To general charges £683 10s. To mine development, redemption account £591. Profit for month £5218 9s. 7d.—Revenue. By gold accounts—2182·69 ounces from 50 stamp mill, at 74s. per ounce £8075 19s. 1d. By 816 ounces from cyanide works at 60s. per ounce £2448. By house and stand rents £43 5s. Total revenues £10,567 4s. 1d. Working cost. Mining expenses 10s. 6·030d. per ton. Transport 4·759d. per ton. Milling 3s. 5·412d. per ton. Cyanide works 4s. 2·981d. per ton. General charges 3s. 5·634d. per ton. Maintenance (mine and mill) 2s. 0.994d. per ton. Mine development redemption 3s. per ton. Total cost £1 7s. 1·810d. per ton. Value of yield £2 13s. 5·053d per ton. Profit £1 6s. 3·243d. per ton.—Expenditure on capital account. Mine development £1213 15s. 1d. Main incline shaft—expenditure on account £428 7s. Machinery, plant, and buildings on account £942 2s. 6d. Cyanide works on account £21 2s. 10d. Total £2605 7s. 5d. The quantity of ore mined in excess of that milled—viz., 357 tons, was obtained by development operations, and placed to ore at grass; the valuation of same being credited to mine development account, and not to revenue account. The new shares applied for will be issued from the head office so soon as the lists of European applications have been received from London and Berlin offices.

Durban-Roodepoort Gold Mining Company (Limited)

The following resolutions have been passed by the directors: —"That an interim dividend of 3s. per share (15 per cent.) free of income-tax, be and is hereby declared payable at the Bank of Africa (Limited), 138, Cannon-street, E.C., on Friday, the 28th day of September, 1894, to the shareholders registered in the books of the company on Friday, the 21st day of September, 1894, and to holders of share warrants to bearer. That the transfer books of the company shall be closed from Friday, the 21st day of September, 1894, to Thursday, the 27th day of September, 1894, both days inclusive." The warrant for the dividend upon the registered shares will be posted on the evening of Thursday, the 27th September, 1894. Holders of share warrants to bearer will receive payment of the dividend upon presenting coupon No. 16 at the Bank of Africa (Limited).

Harmony Gold and Land Company (Limited).

The following circular has been sent to the shareholders:—Some months since, the largest shareholders in the company (not connected with the vendors) proffered their support to Mr. John Procter and myself, if we could carry through any arrangement by which the company could develop the, more or less, 150 square miles of which it either owns the freehold or over which it has leasehold mineral rights, as it appeared that, since Mr. Procter's visit to Africa, no steps were being taken by the board to do anything with our valuable property. After negotiations extending over more than three months, we have *secured* some most important concessions from the original vendors, *who will in future have no connection with the management of the property either in London or Africa*, if the shareholders adopt the proposals which in a few weeks we shall put before them. Having communicated the above to the Chairman of the company, he has promised us that, as soon as our arrangements are finally completed, a meeting shall be called, at which the shareholders will be asked to elect directors not connected with the vendors, and thus benefit by the concessions we have secured. If the approval of the shareholders to our proposals is obtained, Mr. Procter will at once leave for the Transvaal to arrange for the future management of the property. Mr. Procter and I think it desirable that you should, as a shareholder, be put in possession of the above information, from an authentic source, as soon as possible.—I remain, Sir, your obedient servant, N. F. ROBARTS.

New Aurora West Gold Mining Company.

The accounts for the half-year to June 30 show a net loss of £480, after charging £3518 for depreciation and redemption. The cash, gold, stores, and sundry debtors on June 30 amounted to £5806, while the liabilities were £25,515, of which £24,234 is due to the South African Trust and Finance Company for advances. The directors, in their report, say:—"Shareholders were advised by circular in April last that it was considered advisable to shut down the mill and limit operations in the mine to the sinking of the main shaft to the fourth level. This course was adopted owing to a great portion of the main reef leader proving unpayable, and to the want of development, which could not be carried out without the rock drills and without the necessary funds for their erection. It is estimated that a sum of £15,000 should be available for the purpose of development, erection of rock-drills and some sundries. The liability to the South African Trust and Finance Company (Limited) on June 30 was £24,234, as security for which it holds a bond at 30 days' call bearing interest at 10 per cent. per annum. That company, with which the loan was negotiated by authority given by shareholders at the meeting in October last, has expressed its unwillingness to make advances beyond the sum of £25,000. Efforts have been and are being made by the board to get an offer of financial assistance from other sources to lay before shareholders, but they have not, so far, been successful, nor could the 40,000 shares, the issue of which is authorised, be disposed of. There were some negotiations carried on also with the view of formulating a scheme of amalgamation with adjoining companies. So far, however, these have taken no practical shape There is, of course, a possibility of a scheme yet being provisionally arranged; but, in view of the financial position of the company, shareholders should not place too much reliance on this contingency."

Henry Nourse Gold Mining

The report of the directors for the year ended on June 30 shows that 23,417 tons have been crushed for 19.993 ounces, at a cost of £2 4s. 10d. per ton. Tailings to the amount to 21,800 tons have produced 8034 ounces, the treatment costing 10s. 1½d. per ton. The net profit for the year, after charging £8664 for depreciation, amounts to £26,493, or about 26½ per cent. on the present capital. In addition, the profit and loss account is credited with the £25,000 of premium on the 25,000 new shares issued in March last, the total credit balance carried forward being £53,813. The balance-sheet shows liabilities amounting to £6262, while the items of cash, gold, stores, and debtors total £60,940, leaving a favourable balance of £54,678. Of this, £50,000 is the amount received for the 25,000 new shares, and the whole of this sum will be utilised for capital expenditure only. A new 40-stamp (heavy pattern) battery and new cyanide works capable of treating 6000 tons of tailings monthly are to be erected, and a rock-drill plant and an electrical installation are also being arranged for. The quantity of payable ore opened up is 61,710 tons, this consisting of South Reef matter only.

— The directors of the ISLE OF MAN MINING COMPANY, in their report issued on Thursday, state that the depreciation in values amounts to 25s. per ton on the ore raised during the year. The ore raisings for the year were 4700 tons, against 4650 tons for 1893. The profit has been £4477, against £8174 for 1893. The directors recommend a dividend of 2½ per cent. on the ordinary capital, and 7½ per cent. on the preference capital.

— The LONDON AND WESTERN AUSTRALIAN EXPLORATION COMPANY (LIMITED) has been formed, under influential auspices, for the purpose of acquiring and dealing at first hand with mining properties in Western Australia. The company has a capital of £100,000, and a sufficient sum has been privately subscribed to enable it to begin operations without any appeal to the public.

— The GENERAL MINING ASSOCIATION (LIMITED), through Mr. Miller, Q.C., in accordance with a special resolution passed by the shareholders, and on the certificate of the chief clerk, asked for a reduction of their capital by £68,672 10s., to be returned to the shareholders as being in excess of their requirements. His lordship (Mr. Justice Romer) granted the necessary approval, with the observation that the shareholders must be fortunate people.

— The directors of the DAY DAWN P.C. COMPANY have sold through Messrs. Johnson, Matthey and Co., the gold ex. s.s *Jumna*, which realised £4018 1s. 4d.

— At the annual meeting of the HENRY NOURSE GOLD MINING COMPANY the Chairman stated that probably the new works would absorb £10,000, in addition to the cash in hand. This amount would have to come out of profits; but after January 1 next the whole of the profits earned should be available for dividends. The new mill might be expected to start work on April 1, 1895; and not only the south reef, but the main reef leader will then be crushed.

— The directors of the KLERKSDORP ESTATES have called a meeting of the shareholders in order to submit a scheme of reconstruction. It is proposed that the new company shall have a capital of £200,000 in 10s. shares, which shall be credited with 7s. as paid up. The liability of 3s. will be payable as to one-third on allotment, one-third three months later, and one-third, if required, six months after allotment.

— The AFRICAN GOLD RECOVERY COMPANY (LIMITED) has received advice that in the action that has been for some time pending in the Transvaal Courts, in which the validity of its patents had been called in question, the Court has found that a royalty contract existed, and the case has been settled by payment of the royalty by the defendants.

— Warrants for 2½ per cent. dividend have been posted to the shareholders of the JOHANNESBURG ESTATE COMPANY.

— Warrants for the dividend of 20 per cent. for the half-year ended June 30 have been posted to the shareholders of the NEW PRIMROSE GOLD MINING COMPANY.

— The secretary of the NEW LOUIS D'OR (MAIN REEF) GOLD MINING COMPANY (LIMITED) writes to us as follows:—"Referring to my communication of the 6th inst., announcing the discovery by the manager of another rich reef upon the property, I am now instructed to inform you that the reef referred to is the Jumper's Reef."

— The directors of the AFRICAN GOLD RECOVERY COMPANY (LIMITED) announce that, subject to audit, they will recommend at the general meeting of shareholders, to be called for the 27th inst., the payment of a dividend to 30th June last of 10 per cent., placing £30,000 to reserve fund, and carrying forward about £13,000.

— MESSRS. LOCKWOOD AND CO., stock and share dealers, have removed to more spacious and commodius offices on the ground floor of 3, Throgmorton Avenue, E.C.

— Holders of scrip certificates to bearer for shares in the CHAMPION REEF GOLD MINING COMPANY OF INDIA (LIMITED) issued July 18, 1892, are requested to present their scrip at the office of the Gold Fields of Mysore (Limited), 6 and 7, Queen Street Place, E.C., in order that the dividend of 2s. per share, due that day, may be paid thereon.

— The directors of the ELKHORN MINING COMPANY have declared an interim dividend of 1s. per share, free of income tax, for the quarter ended August 31. Dividend warrants will be posted on the 28th inst. to all shareholders registered on the books on September 3.

SHOTTS IRON COMPANY.—The annual general meeting of this company was held on Wednesday in the company's office in Edinburgh, Mr. Jordon presiding. The report of the directors for the year ending June 30 states that the new blowing engine and additional regenerative heating stove ordered for Shotts Ironworks, and referred to in last report, have been completed, and are now at work. A new system of hydraulic pumping has also been provided for Barghlee Pit, Loanhead, to supersede the expensive and objectionable mode of drainage by underground steam pumps previously in use. The cost of these works, amounting to £11,966 1s. 6d., has been charged to capital account, The company will derive substantial benefit from these improvements. The profit and loss account for the year shows a debit balance of £1674 18s., and in addition to this the company have had to provide £2091 7s. for surface damages by mineral working of old date for which the company are responsible. The manufacture of iron during the year has been comparatively unprofitable owing to the high price of coal, and consequent high rates of mining labour following on the Midland strike in the autumn of 1893. The directors deeply regret to record the loss by death of their esteemed colleagues Mr. Andrew Leslie, of Coxlodge Hall, Newcastle-on-Tyne, and Mr. Robert Bell, of Clifton Hall, Ratho, the latter of whom had acted with great ability as Chairman of the board for ten years. The vacancies have been filled by the appointment of Sir James Miller, Bart., of Manderston, Duns, and Mr. Jas. Dundas Lawrie, stockbroker, Edinburgh. Mr. Lawrie and Mr. Murray were re-elected directors. Mr. James Greig, C.A., was appointed auditor for the current year, and the meeting terminated with a vote of thanks to the Chairman.

PROGRESS AT COOLGARDIE.—The following is an extract from a letter received from one of the directors of the Coolgardie Gold Mining and Prospecting Company, under date of August 7:—"Crushing operations on Lake View have been delayed through non-delivery of the machinery; all has now been delivered in the mine, as well as five extra stamps for the Coolgardie Company, which will be driven by the Lake View engine. Your cable to crush 100 tons of Great Boulder stone will have early attention, and the result will be cabled to you. Large dams and tanks are in course of construction which, when finished, will hold 5,000,000 gallons. Water has been struck in the Great Boulder main shaft at 175 feet, also on the Mint at 200 feet, where we are driving for the reef, and expect a large supply when it is cut. We are also running the Adelaide and Lake View shafts down for water; this, I think, will settle the water question if the reefs contain a good supply; if not, we will have to pump from the lakes. All we want is water, and any number of stamps can be kept going. The Lake View Leviathan reef is 20 feet wide, and no wall, with first-class milling ore. This reef is now looked on as one of the best in Western Australia outside of the show mines, Bailey and Londonderry, and passes through the Lake View South, Lake View Extended, and Adelaide claims, and has been traced and pegged for seven miles. Lake View South Lake View Extended, and Adelaide look as if they will rival anything. We have a manager who has gone right through the claims, and all who return from Hannan's speak in the loudest praise of the claims, and to the manner in which they have been opened up, Lane's contingent have been of the greatest assistance in opening up the blocks. The Royal Mint plant arrived this week. It consists of 10 head stampers, with steam and motive power for 20. The claim is opening up in a first-class manner."

DIVIDENDS ANNOUNCED.

Ærated Beverage and Buffet Pref., 1s. 6d. per share. payable Sept. 15.
African Gold Recovery, 10 per cent.
Alliance Trust, Ordinary shares and A shares, 10 per cent.
Alliance Trust Pref., 4½ per cent.
Anglo-British Columbia Packing, 10 per cent.
Anglo-British Columbia Packing Pref., 4 per cent. (arrears) and 8 per cent.
Armstrong, Mitchell and Co., 10¾ per cent.
Australian and New Zealand Mortgage, 5 per cent. Payable 2nd prox.
Baker's Creek, 1s. per share.
Bank of England, 4 per cent.
British and American Mortgage, 10 per cent. Payable 28th inst.
Caledonian Railway, 4 per cent.
Callander and Oban Registered, 2½ per cent.
Canterbury and Paragon, 5 per cent.
Colombian Hydraulic, 1s. per share. Payable October 2.
Copiapo Railway, $5 per share.
Davidson (C.) and Sons, 6d. per share.
Davidson (C.) and Sons New (10s. paid), 3d. per share.
Direct Spanish Telegraph, 1s. 8d. per share.
Durban-Roodepoort, 3s. per share. Payable 28th inst.
Elkhorn, 1s. per share.
Great North of Scotland Railway, 3¼ per cent.
Great North of Scotland Railway Deferred No. 1, ¼ per cent.
Griendtsveen Moss Litter, Pref. and Ordinary, 6½ per cent. Payable October 15.
Hong Kong and Shanghai Banking, £1 per share.
Horncastle (Lincolnshire) Railway, 8 per cent.
Isle of Man Mining, 2½ per cent.
Isle of Man Mining Pref., 7½ per cent.
Manchester Fire Assurance, 10 per cent. Payable September 29.
Mortgage Company of South Australia, 4 per cent.
Mortgage Company of South Australia Pref., 5 per cent.
New Zealand and Australian Land, 6 per cent.
New Zealand and Australian Land A Preference Stock, 4 per cent.
North British Railway Deferred, ¼ per cent.
North British Railway Pref., 3 per cent.
Northern Investment of New Zealand, 6 per cent.
North Smithfield, 1s. 9d. per share.
Nottingham Suburban Railway, 3¼ per cent.
Redfern, 4 per cent.
Shaw, Savill, and Albion, 5 per cent. Payable 1st prox.
Sheepbridge Coal and Iron, A, 12s. 6d. per share. Payable October 1.
Sheepbridge Coal and Iron, B, 5s. per share. Payable October 1.
South British Fire and Marine Insurance of New Zealand, 15 per cent.
Tennant Brothers, 10 per cent.
Thetford and Walton and Walton and Swaffham Railway, 5 per cent. pref. stock, 4½ per cent.
Vienna General Omnibus, 6 per cent.
Vienna General Omnibus Deferred, 18s. 3d. per share.
Washington Brewery, 5 per cent.
Washington Pref., 8 per cent.

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

ESTABLISHED IN 1835.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, published every SATURDAY MORNING, price SIXPENCE, is recognised throughout the World as being the oldest, most influential, and most widely circulated Journal devoted to the interests which it represents. It circulates

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Editorial and Advertisement Offices:

18, FINCH LANE, LONDON, E.C.

Telegraphic and Cablegraphic Address: "TUTWORK, LONDON."
Codes used: "A.B.C.," Moreing's, and "Universal."

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LONDON: SEPTEMBER 15, 1894.

THE PRINCIPLES OF JIGGING.

WE have recently devoted a good deal of space to the subject of the concentration of ores, and we recur to-day to the same subject for the reason that we are ourselves so fully convinced of its extreme importance, whilst we see evidence on all sides that it is too much neglected by our British mine-owners and mine agents. There is no need of insisting upon the proposition that large—relatively very large—quantities of valuable mineral are lost through inefficient ore dressing processes and appliances, but it is worth while noticing that such loss is not merely the loss of the individual mine-owner or company more directly concerned, but also of the nation at large. In the first place the mineral deposits of the country are undoubtedly a portion of our national wealth; the country is impoverished by so much for every ton of mineral that is extracted from the great natural storehouse, and it behoves the custodians of these subterranean treasures to see that none of them are allowed to be uselessly wasted. In the second place the extraction of this same mineral has only been accomplished by an expenditure of some of that labour which forms the mainstay of national prosperity, and if the utmost particle of valuable material is not obtained from the mineral so raised, a proportionate amount of labour will have been expended uselessly. Of course this argument, like any other, can be pushed too far; it is quite possible to expend upon the extraction of the last particles of valuable matter from an ore an amount which cannot be recouped by the value of what is thus saved. The problem, therefore, becomes not merely the extraction of the greatest possible quantity of valuable material from a given ore, but its extraction under conditions that shall combine the maximum of economy with the maximum of efficiency. And we do not hesitate to repeat that the proper solution of this problem is, for the above reasons, a question of national importance.

We have already in previous numbers of *The Mining Journal* given examples of some first-class concentration mills, and have described fully the details of their arrangements. It is a melancholy fact that we have been obliged to draw upon foreign countries for these examples. Like many other articles with which we are familiar, the best concentrating machinery is "made in Germany." We fear that we could not find in Great Britain a single example of a thoroughly good concentrating mill; whilst the whole of the progress that has been made for the last half century or so in the art of concentration has been made abroad, and it is principally to America and to Germany that we have to look for instruction on this subject, and it is in those countries that the theory of concentration has been most thoroughly studied. Having already given practical examples of how such problems of ore dressing are there attacked, we propose to-day to give a brief *résumé* of the theory of ore concentration as exemplified in jigging. No doubt many mine-owners reading our previous articles, will have felt sincere regret that the finances of their mines did not allow them to think of erecting similar establishments. To such we wish to point out that a thorough study of the theory of concentration would probably enable them to greatly improve their existing methods at small cost. Of course, we cannot attempt to go at all exhaustively into the subject, which would require volumes for its proper treatment. All we shall attempt to do is to present an outline of the theories of ore jigging in as simple and untechnical language as possible, and divested as far as possible of its mathematical aspect which, though of fascinating interest to the few, is of little or no use to the practical miner or mine-owner.

If we consider a simple ore such as—to take a familiar example—lead ore consisting of galena disseminated in quartz, the usual practice now is to crush it in rolls to about the size of peas, to treat the coarser portion of the crushed stuff on jigs, and the finer part or slimes upon some form of table or buddle. Confining our attention to a particle of ore that has been placed upon the sieve of a jig, we find that it is there subjected to the action of an upward current of water of very short duration. This water current lifts it from rest, and it rises with a gradually increasing velocity until it attains, or tends to attain, a uniform velocity with which it continues to move upwards as long as the upward current of water continues. When the down stroke of the jig piston (which impells the water upwards through the sieve) is stopped the water itself rapidly comes to rest; there is then no force lifting the particle of ore, whilst its motion is checked by the action of gravity and by the friction of the water which surround it. It also, therefore, very rapidly comes to rest, and then commences to fall through the water under the action of gravity with gradually increasing velocity, which tends, however, to become uniform, and which will become uniform if the stroke of the jig be slow enough. Most of these points have been investigated by the well-known German authority, P. von RITTINGER, whose famous work on ore dressing, published nearly 30 years ago, is still the standard book on the theory of the subject, although many discrepancies are known to exist between his theoretical propositions and actual practice. He has, however, shown that a small body reaches the state of uniform velocity of fall more rapidly than does a large one, and that a particle of galena 1 millimetre (say 1-25th of an inch) in diameter requires ¼ second before its velocity becomes uniform. As jigs work on the average at the rate of some 90 strokes per minute, it is evident that the above-mentioned uniform velocity—the maximum velocity at which any given body can fall through water—is not always reached in practice. The process of jigging, consists of two distinct phases, in the first of which each particle of ore on the bed of the jig is lifted by a water current, and in the second of which it again falls downwards towards the bed, these phases succeeding each other with considerable rapidity. Common sense alone will tell us that in the first phase a light body will be lifted higher by the water than a heavy body, and that, in the second phase, a heavy body will fall through the water faster than a light body, and these facts have been confirmed by exact experiments and by mathematical investigations. It is, therefore, clear that the action of each phase is in the same direction, and tends to increase the effect of the alternate one. It may be taken as definitely proved that a large fragment will be lifted a lesser distance, and will fall more rapidly than a small fragment of the same substance, whilst in the case of fragments of different substances but of the same size, the heavier will fall more rapidly and be lifted a lesser distance. The precise relation between the distance which a body is lifted or falls in the respective phases of jigging, and its size and specific gravity is a somewhat complicated one; so much so that, in spite of the labours of many engineers who have studied this subject both in America and in Germany, it has not yet been authoritatively settled. The rate of motion of the body also depends on its shape, and very greatly upon the nature of its surface, so that for each mineral there will be a constant co-efficient that must necessarily be determined by experiment. At any rate the broad facts as above stated are sufficient for us and we can see from them that if the mineral we were jigging consisted entirely of coarse and fine particles of any one substance, we should get two layers upon the jig sieve, the lower one consisting of coarse and the upper of fine particles. If, on the other hand, our mineral under treatment

consisted of particles of quartz and galena, all of equal size, the lower layer would consist entirely of particles of the heavier galena, whilst the upper one would consist entirely of particles of the lighter substance quartz, and if our object were the concentration of the galena, we could at once proceed to get rid of the upper layer, and would have our pure galena left behind.

Unfortunately, however, in practice, it is impossible to have all the particles of the same size; there is no machine in existence—and there probably never will be—capable of crushing an ore, so that all the particles shall be even of approximately equal sizes. Accordingly even if we had separated our crushed stuff as indicated above into fine and coarse, the latter, which we should have to treat on our jigs, would contain particles of many different sizes. We should, therefore, get all the galena except the finer stuff in the lower layer, and all the quartz except the coarser stuff in the upper, but the former would still carry a good deal of quartz, and the latter a good deal of galena; so that if the upper layer were now thrown away, much loss of valuable ore would result. It should be pretty obvious by this time where the remedy for this defective concentration will have to be sought; it obviously consists in "sizing" the crushed mineral before jigging it, and this is the essence of modern improvements in concentration. Mineral must not be treated on the jigs indiscriminately as it comes from the crushing machinery, but must first be separated into sizes. All sizes coarser than 1-30th inch, or thereabouts, in diameter, can be treated successfully on jigs, although it is to be noted that mineral, the particles of which are less than ¼ inch in diameter, require a somewhat different system of jigging, both the construction and mode of driving of the jigs having to be modified. We have shown how important it is that all the particles that are being treated on the jig should be of approximately the same size; it now remains to see what we mean by approximately, or in other words, How close is it necessary to size in order to jig successfully? Here we are on a subject on which "doctors disagree." The Americans claim that close sizing is not necessary, whilst the Germans insist on its paramount importance. It is fairly obvious from what we have said above that it will always be possible to select fragments of quartz of such a size that they will be lifted or fall in the water of the jig at precisely the same rate as would smaller particles of galena. Of course, in a mixture of such "equal falling" particles, no separation would be possible by jigging, so that sizing is an absolute necessity; at the same time it would seem that the Germans have been too ready to rest contented with the closeness of sizing specified by RITTINGER, which he based upon the maximum velocities attained by particles after they have commenced to fall with uniform velocities at the conclusion of the period of acceleration. As we have already stated, this velocity is not always reached in the ordinary jigging practice, in which the period of acceleration forms a very large proportion always of the falling phase, and hence sizing need not be quite as close as recommended by German authorities. For example, a particle of galena falls at the same rate as a particle of quartz of four times its own diameter when both have attained their uniform maximum velocities, but previous to that time it falls much more rapidly. As we have already said, reliable data for calculation are still wanting, so that experiment is the safest guide. The miner who has, therefore, to concentrate any ore, should first of all commence a series of experiments with particles of different sizes, and find out for himself within what limits of size he can get good jigging results in the shape of clean tailings and clean concentrates, and then arrange his sizing machinery well within the limits thus empirically determined. Of course the more sizes he makes, the more expensive will his plant be, both in first cost and in operation afterwards, because he will need a separate jig for each size that he makes. On the other hand good separation is a matter of such importance that the additional outlay—if it ensures better work—is usually money well expended.

We have hitherto only been considering the separation of the ore into two classes, but in practice there are always at least three, namely—rich concentrates, worthless tailings, and middlings." With regard to this last class a great deal of misconception exists. If we had simply to deal with the simple ore of quartz and galena which we have selected for this investigation, middlings could only be produced by two causes—deficient crushing or deficient jigging. The latter difficulty can always be got over by jigging long enough with properly sized ore, but the former requires different treatment. By deficient crushing we mean that all the ore has not been broken up into particles of clean quartz and particles of clean galena, but that a certain number of particles are produced which consist of both galena and quartz; it is obvious that this will always be the case to a greater or less extent. These particles will naturally rise faster and fall more slowly than pure galena, and rise more slowly and fall faster than pure quartz, and will, therefore, occupy an intermediate place between the two on the jig bed. In a properly conducted process of concentration, the middlings will consist entirely of such mixed ore, when the ore contains only gangue and one valuable mineral. It is quite obvious that the usual plan of taking up the middlings and jigging them over again is of no use if the first jigging has been thorough; they would be sure to return to their same relative position on the jig bed. "Once middlings, always middlings." The only proper treatment for middlings is to crush them again to such a size as will ensure the greater part of the valuable mineral being split off from the particles of gangue, and then jigging the re-crushed stuff over again. This treatment will, of course, separate the valuable from the worthless matter, and is obviously far cheaper than crushing the whole of the mineral raised to the finer size at the outset. The more coarsely the ore can be crushed in the first stage, provided fairly good separation is effected, the more economical will the process prove, both because less power is wasted and because less slimes are produced. This system of step by step reduction in size, alternating with separation of the clean valuable portion of the ore, is another of the principles of modern ore concentration, and we trust that we have made clear the theory that should guide its application.

We have avoided throughout any reference to complex ores containing several valuable constituents which may require repeated jiggings to separate their valuable constituents from each other, and from the worthless gangue. The theory of concentration is best understood in its simplest form, and once thoroughly understood, its application to more complicated problems will prove comparatively easy. For the same reason we have omitted all mention of the machinery by which the various operations are to be conducted. We have in previous numbers already indicated the nature of the machinery that is required, and our object to-day has been to present the theory of jigging in its purest form, divested as far as may be from technicalities that might obscure the object we have had in view.

AN INDUSTRIAL FORECAST.

WHILE many may dissent from the optimistic tone running throughout the Presidential address, delivered by Sir ALBERT ROLLIT before the Associated Chamber of Commerce, assembled this week at Huddersfield, there will be a wide and cordial recognition of the many valuable and suggestive points contained therein. In the absence of a Minister of Industries and of a Trade Parliament it is of the highest importance that the merchant and industrial section of the nation should occasionally be taught by example how to take a broad and connected view of the underlying principles and the contingent circumstances upon which their ultimate success must depend. The time, moreover, for such an object-lesson in thought could hardly have been more wisely chosen. A period of commercial depression necessarily engenders thoughtfulness in the minds of those who are the sufferers by it, and now that the cloud seems lifting this sobriety of mind may be linked with an energetic resolve to profit in every possible way by the upward movement. To such as these Sir ALBERT'S speech will be valuable reading, for it is hopeful, though level-headed, and suggestive, though admonitory. There is no small consolation for past adversity in the reflection that England has not suffered alone. Indeed, our own misfortunes are quite overshadowed by the greater calamities of other nations. Notwithstanding her recourse to methods long abandoned here as obsolete, the United States have had to chronicle an unusually large number of failures for the past six months. The sharp and almost menacing tone of the popular demand for a reformed tariff suffices to show that America has not prospered of late. Elsewhere there has been the same story to narrate. The stress of competition, and the acute development of the labour problem have made themselves felt in every quarter of the globe. Germany has made but little progress so far as her exports are concerned; while France, where she has not declined, has, at most, kept her ground. So that no disheartening comparisons can be made to the disadvantage of England; beyond which the present ratio of British to foreign trade is not at all likely to depreciate. The ground thus cleared of all justification for an undue pessimism, Sir ALBERT proceeded to elaborate a number of considerations bearing closely upon the future. Internal dissensions of labour and trade are at least equally embarrassing with foreign opposition and combination. Domestic and Imperial Unity are so obviously the means of forestalling these evils that there would hardly be a need to insist upon them were it not that they are considerations frequently neglected and even decried. The current of Colonial feeling is strongly setting in for Imperial Unity, and would seem merely to require encouragement at home to find its accomplishment. "Commercial union," says Sir ALBERT, "upon the basis of free, or at least freer, trade may not yet be practicable; but the way is being prepared for possible developments in that direction, especially if they should become necessary, even at some economic sacrifice, for greater political or commercial ends." Nor is it all obvious that Parliament could easily and judiciously interfere with commercial matters. Innumerable instances of measures elaborated with all possible care having proved cumbersome and abortive, go to show that little if any dependence should be placed upon legislative action over private initiative. Railways are a probable exception to the rule, and might profitably be subjected to considerable Parliamentary control in the matter of rates, punctuality, and systematisation. Among other matters classed together by the President of the Chamber as legitimate subjects for State interference, are industrial conciliation, the exemption of machinery from rating, the suppression of rampant frauds by a reform of company law, the registration of firms and the preservation of our sea fisheries. A recognition of the propriety of occasional legislative action is, however, properly conjoined with complete reliance upon individual initiative, and Sir ALBERT has forcibly lectured the manufacturer upon the absolute necessity of adopting the most efficient modes of machinery and production, of perfecting the methods of distribution, and, above all, of avoiding the tendency towards shoddyism produced by the demand for cheapness. Whatever view may be taken of Conservatism in politics, there is little doubt that it has often been carried unduly far by the manufacturers of this country. Observance of traditional methods, though in other ways a salutary thing, may become absolutely pernicious if it deter the producer from carefully moulding his product to the needs of the consumer. News sometimes comes to hand of an article made in Germany, because the Sheffield manufacturer will not sufficiently unbend to meet the needs of the public in violation of his precedents. Regarded as a whole, the speech of Sir ALBERT ROLLIT was distinctly of a hopeful and favourable kind. With the immense advantages of position, shipping and Empire, which preponderate for us over those of all other countries, there is everything in favour of our commerce, if only the spirit of progress be diffused among those who hold its interests in their hands.

NOTES AND COMMENTS.

AS might have been anticipated, the proposal to establish a School of Mines at Johannesburg has aroused the keenest satisfaction in South Africa. While, however, none has yet ventured to call in question the abstract idea, a good deal has been said as to the merits of the various proposals for putting it into practical effect. It is clear that the principle of education in the duties of a mining engineer is susceptible of many readings. All the difference between a highly-graduated engineer and a mere smatterer will lie between the ideas of the extreme parties. About the need of an education terminating in proficiency there is no difference of view; but as to the particular significance to be attached to the word "proficiency" itself there is a good deal. For ourselves, in settling upon the length of the course of instruction, we should be rather inclined to err upon the side of length, than upon that of brevity. The danger to shareholders all over the world which would ensue upon the letting loose of a crowd of unfinished students in mining, with all the glamour of a worthless degree upon them, must be estimated as something big enough to make us royally careful in the settlement of preliminary details. It is a hopeful sign that a good many voices are being raised in favour of thoroughness, and they will in all probability gain the day.

A LETTER in a British Columbian paper—the *Victoria Daily Colonist*—affords additional evidence of the growth of the organising spirit in mining. The idea of the establishment there of a bureau of mining, where information as to mines in all parts of the colony could be had for the asking, is gradually spreading among the people, and before long we may see its culmination in accomplished fact. What the value of such an institution would be to the country is not difficult to divine. Both the shareholders and the Government would have ample reason to feel beholden to such an invaluable source of knowledge—the former because of his interest in any of the many mines of British Columbia; the latter because of its service in supplying the necessary data for the making of roads. But the greatest utility would lie in the entire dissipation of the mists which envelope the mind of the public on matters relating to the mining of the Province. Where but little is known there must be habitual distrust, but where all the requisite details of the position, extent, and development of the mines are at hand, vouched for on the authority of a recognised representative *Bureau*, anything like over scepticism would be an absurdity. We shall be glad of the opportunity of congratulating British Columbia upon the establishment of this institution.

THE forthcoming South African Exhibition at the Crystal Palace is not receiving all the encouragement in South Africa that its promoters had a right to anticipate. That the exhibition may technically be termed a private undertaking has been made a reason by certain parties for giving it the cold shoulder, and the high patronage accorded to the affair in England has not reconciled certain official trans-ocean nobodies to a connection with it. An appeal to the local Chamber of Commerce for support has led to the following portentous utterance on the part of that body:—"In reference to the participation of members of the Chamber in the South African Exhibition, it was pointed out that the committee are not personally, or as a body, in a position to assist in this matter, and as the Volksraad is now dissolved, there is no possible chance of approaching the Government with any hope of success." It is fortunate, however, to be able to reflect that the exhibition is in the hands of parties who will not easily be disconcerted.

ALMOST the only criticism passed upon the scheme of reconstruction, submitted at Wednesday's meeting of the shareholders in the Klerksdorp Estates, was that it was somewhat late. Beyond that it was received with practical unanimity as the needful step towards a future career of prosperous working. Reconstructions are not generally greeted with so much satisfaction. Under ordinary circumstances the shareholders would, upon the whole, be rather pleased than otherwise at a delay of half a year or so. But then shareholders in gold mining companies have not often the fortune of being told that diamonds have been discovered upon their property. Such is the case with their shareholders in the Klerksdorp Estates, and at once their complacency becomes understandable. The accidental discovery of diamonds among the gold came as a revelation to the board, who were only too glad to take into consideration the question of reconstruction in order to be able to provide the plant necessary for turning the capabilities of the mine into valuable account. From reasons which have prompted the reconstruction, and from the attitude of the meeting towards the scheme, there can hardly be any doubt of its success, especially if there be anything in the report to the effect that the reconstruction has been taken up by a well-known firm of brokers in Old Broad-street.

ANOTHER record output for the Witwatersrand district has been received, and has had its usual stimulating effect upon the Stock Exchange. After the unfortunate falling-off for the months of June and July, the announcement has been received with double satisfaction. The margin between the total for August, 174,977 ounces, and the previous record, is as big as 5204 ounces. Prominent among the contributors to this splendid figure are the Geldenhuis Estate, with an advance of nearly 3000 ounces, and the City and Suburban, with an improvement of 2504 ounces. So far as the Stock Exchange is concerned, the news came to hand at a peculiarly happy moment. The recent ad-

vance in the markets had, for the time being, arrested itself, and there was a shrewd idea abroad that prices had risen as far as they were likely to do. Without positively retarding, the shares had begun slightly to waver when the news from the Cape brought about a wholly improved state of things. The effect upon the investor has been such that it will probably remain during the forthcoming account, which is commenced under peculiarly favourable auspices.

AT the present time the air is almost thick with engineering projects upon an overwhelming scale. A good first comes the proposal for draining the Zuyder Zee, which is nothing less than the reclamation of a large sized province from the sea. The tunnel through the Simplon, already sanctioned in the rough by the Swiss Federal Council, is a scheme not unworthy to rank abreast of the one already noted. Then there is the canal through Southern France, joining the Atlantic Ocean with the Mediterranean Sea, calculated to necessitate the construction of some 60 locks, and the expenditure of too large a sum of money to make it certain of being remunerative. Beyond these there is the proposal—one of the most gigantic of all—to create a vast storage reservoir in the Nile above Egypt, in addition to two or three projected canals in the northern part of the American Continent, and a considerable number of railway proposals in different parts of the world. Notwithstanding that many of these are not likely to be carried into practical effect during the year in one or other of the cases there is little doubt that a commencement will be made with the result that some impetus will of necessity be given to the engineering industry.

THE profit-sharing system which has been tried with not altogether satisfactory results in the North, has had rather a more successful application by an engineering company in Halle, Germany. The men are divided into four sections, according to the several terms of service, and from the circumstance that the large majority—over three-fourths of the employees—have by three years service entitled themselves to rank in the first section argues very favourably for the arrangement. Over £2000 was paid last year to the men, which equals 3s. per man for every £1 paid in dividends. During 1892 the men in the first section received as large a sum as £5 5s. each. It may, perhaps, be open to question whether the success hitherto obtained is not due to the affluent state of the company's affairs, and to put this to the test it would have to be seen what view the men would take of a more adverse period. A company which pays 35 per cent. n one year—as did the Halle Engineering Company in 1892—may easily be successful under an arrangement which would work more hardly for a less prosperous concern. A possible solution of the great labour difficulty however is worthy of every consideration in these times of unrest, and should be given every chance of success.

ANOTHER attempt is being made by a combination of French and Dutch speculators to create a corner in tin. According to assertions from some sources they hold at present 16,000 tons, a quantity nearly equal to the whole supply of Europe. The present low price of tin, together with the prospective revival in trade, and consequent enlarged consumption, are the circumstances upon which the operators largely depend for the issue of their scheme. The success or failure of the move is, of course, largely dependent upon the amount of stocks in America and Europe. In the former case it is known that the present stocks have fallen considerably below 1000 tons. In Europe, however, during the past months stocks have been steadily accumulating, until at the end of August last they amounted to 20,487 tons, against 14,817 tons in July of last year. As the effect of their operations, tin has already gone up £6 a ton, and could they but get rid of their stocks they would make a great haul. Buyers, however, are not at all plentiful, and there seems a strong likelihood that the scheme will end in a failure as ignominious as several have done in the past.

ACCORDING to the Australian papers to hand by the last mail, the richness of the El Dorado Mine has given a considerable impetus to the industry in the whole of the colony. Several exploratory expeditions have been dispatched into the north-western country for the purpose of proving ground there, with, in some cases, most satisfactory results. The discovery made by the party under the charge of Mr. J. Earle will probably be known as one of the most important of these. There would appear to be little doubt that they have stumbled across a payable gold field, situated somewhere, it is said, in the Musgrave Ranges. A good deal is being said about a forthcoming application to Government for the usual reward of £1000 for the discovery of a payable gold field. So much reticence has been observed about the occurrence by the parties interested that it is difficult to speak with any confidence concerning it; but, notwithstanding this, local opinion has pretty well settled into the conviction that the event will have an important bearing upon the future of the Australian industry.

FORTHCOMING MEETINGS.

**** We shall be obliged if Secretaries or other Officials of Mining, Railway and other Companies' will be good enough to advise us as early as possible of the date, time and place of their forthcoming meetings—whether statutory, semi-annual, annual, general or extraordinary, confirmatory or adjourned—in order that particulars may be announced for the benefit of our subscribers and more particularly our country readers. Balance sheets, reports and other matter to be submitted at such meetings should, where possible, accompany the intimations of the meetings sent.*

Name of Company.	Date.	Nature of Meeting.	Place.	Time.
Argentine Concession	Sep. 17	General	Cannon St. Ho.	12 noon
Australian Gold Extract. Co.	Sep. 18	General	Glasgow	11.30 a.m.
Joe's Reef United (Sheba) ..	Sep. 18	General	Cannon St. Ho.	12 noon
Balbarro	Sep. 19	General	37, Walbrook	12 noon
Bank of Africa.....	Sep. 19	General	Cannon St. Ho.	—
Calderbank Steel	Sep. 19	General	Glasgow	12 noon
Moaman Gold	Sep. 20	General	Cannon St. Ho.	2.0 p.m.
Witwatersrand Gold.....	Sep. 21	General	Johannesburg	4 p.m

OUR CITY ARTICLE.

FRIDAY EVENING.

THE MINING MARKET.

A splendid opening.—The markets strong all through.—West Australians lively.—Rand Mines firm.—A strong close.

THIS has been a very good week for all sections of the Mining Market. There was even greater strength manifested on Monday than was the case at any time last week. All sections participated in the improvement. There were hardly half a dozen falls to record in all branches, and these were wholly insignificant in amount. The announcement of a Rand output for August of 174,977 ounces, against 167,953 for July, created a strong demand for this class of shares. Lands and Diamonds were firm all along the line, with the exception, in the latter case, of Jagersfontein, which were suffering from a pronounced dulness. The Miscellaneous shares were firm beyond all expectation, and the result was to lend colour to the expectation of a general rise in the near future. West Australians were mostly dull, but Indians were rather better. Tuesday's carry-over was in every respect a satisfactory one. As compared with those of the last account, a general improvement was exhibited by prices. Other than a small decline in Rio Tinto, there was hardly a single fall of any note to be chronicled. Upon the commencement of operations for the new account, the markets exhibited decided strength, but later on a tendency to relapse manifested itself, which, however, towards the close was again superseded by a buoyant tone. There was in the Miscellaneous market exceptional activity, especially in the West Australian section, where there was great liveliness. The markets were somewhat quieter on Wednesday, but the movement was still in a favourable direction. Several very good rises were registered, and in two cases prices reached a record height. There was manifest the inevitable tendency to snatch profits, and with it some small decrease of the upward movement. Rand Mines were again to the front in the Kaffir section. Chartered were not quite so favourably disposed as they had latterly been; while for diamonds there were but few inquiries. But little business for the new account was done in the Miscellaneous market. West Australian Gold Fields again monopolised attention. There was also some activity among the smaller shares, which tendered to harden these prices. As a whole, the mining market fully maintained its strength throughout Thursday. In the South African section the general characteristic was distinctly good, and a fairly large number of rises were recorded. In some cases, however, the disposition to snatch profits returned, and occasioned a slight set back. But the liveliest spot in the whole mining market was the Miscellaneous section. The lead off here was a good one, and towards mid-day the activity became almost wild. A reaction subsequently occurred, but the insignificance of the relapse was a striking proof of the strength of the market. Thus, towards the close of the week the market maintained consistently the firmness which characterised it on Monday, which was accentuated by the satisfactory nature of the carry-over.

British Mines.

The amount of business done during the week in Cornish shares has been very small, and in most cases at lower prices. The standard at the tin ticketing on the 11th was slightly in advance of the previous sale, but the fluctuations in the Metal Market are not encouraging.—Risen: None.—Fallen: Carn Brea, 10s.; Cook's Kitchen, 2s. 6d.; Dolcoath, £2; East Pool, 5s.; South Crofty, 5s.; Tincroft, 15s.; Wheal Agar, 10s.; and Wheal Grenville, 10s. A call of 10s. per share was made at the South Frances meeting.

South African Shares.

At the opening of this market on Monday it became manifest that the tone prevailing was one of even greater firmness than on the preceding day, the encouraging announcement of the output from the Rand for August leading to a big demand. Henry Nourse were extremely active, and closed 5s. better at 3$\frac{13}{16}$ buyers. Robinsons further improved to 6$\frac{15}{16}$. Langlaagtes experienced a revival to 4$\frac{7}{8}$ buyers. City and Suburban rose another $\frac{1}{16}$, which brought them to 15$\frac{3}{4}$. Rand Mines advanced to 10$\frac{1}{4}$, Crowns to 8$\frac{1}{8}$, Durbans to 6$\frac{1}{4}$. Jumpers were in demand and improved to 4$\frac{11}{16}$. Champ d'Or were active and closed 2$\frac{3}{16}$ bid. Rietfonteins were bought at 1$\frac{11}{16}$ and closed $\frac{3}{8}$ up. Improvements also took place in Geldenhuis Estate, Heriot, Jubilee, Kleinfontein, May Consolidated, Wemmer, Wolhuter, Van Ryn, and others. Chimes, Ferreira, Nigel, and Grahamstown were rather easier. Land shares were lively, and after some vacillations closed firm at 38s. buyers. Bechs, Explorings, Explorations, Gold Trusts, and African Consolidated hardened. Among diamond shares De Beers were better at 16$\frac{7}{8}$. Another satisfactory carry-over was commenced in the South African market on Tuesday. The contango rates ruling were very light. Gold shares were done at about 1d. in the £1, Chartered at 1$\frac{1}{4}$d., De Beers at 6d., and Jagers at 7$\frac{1}{4}$d. The comparison of the present with the last list of making-up prices was wholly advantageous. Rand Mines had improved by £1, City and Suburban by $\frac{15}{16}$, Rietfonteins by $\frac{3}{8}$, and there were considerable advances in De Beers, Champ d'Or, Geldenhuis Estate, Henry Nourse, Jumpers, Langlaagte Royal, Meyer and Charlton, Modderfontein, Simmer and Jack, Wemmer, and Wolhuter. Business commenced briskly for the new account, and some rises took place. Rietfonteins took a further jump of $\frac{1}{4}$ up to 1$\frac{11}{16}$. Salisburys, Henry Nourse, Heriots, and Champ d'Or also went up to some extent. Rand Mines secured a further advance of 10s. up to 10$\frac{1}{4}$. Rises on a more modest scale also occurred in Chimes, Jubilee, Modderfontein, and Primrose. Land shares were strong. Chartered advanced to 38s. 6d. Among diamond shares De Beers were $\frac{1}{16}$ down, but Jagers exhibited an improvement of $\frac{1}{8}$ to 13$\frac{1}{8}$. The South African market continued to be favourably disposed throughout Wednesday. Business as a whole, however, was not upon a very extended scale, excepting in some individual cases, where there were sharp rises, two of which achieved records. Rietfontein had the largest rise, the price rising to 2$\frac{1}{4}$, on support from the Cape. Rand Mines were the favourite among Kaffir shares at an advance of $\frac{1}{16}$ to 11. Nigel improved $\frac{1}{16}$ to 3$\frac{1}{8}$, and small rises also took place in City and Suburban, Ferreira, Robinson, Heriot, Wolhuter, Salisbury, and some half-a-dozen others. Buffelsdoorn, Transvaal Gold, and United Roodepoort all dropped $\frac{1}{16}$ on profit realisations. In regard to the cheaper shares, Alexandra Estate rose 6d. to 5s. 9d., and a further small gain was shown in Geldenhuis Main Reef at 14s. 3d. Chartered fluctuated and closed at 37s. 9d. South African Gold Trust rose 1s., and Bechuanaland 6d. There was little doing in diamond shares, but both De Beers and Jagers hardened to the extent of $\frac{1}{16}$. South African shares continued in unabated strength on Thursday. Taken altogether, the tone of the shares was wholly a strong one, and the rises occurring were fairly general. After pursuing a vacillating course Rietfonteins closed at 2$\frac{3}{16}$, a fall of $\frac{1}{16}$, and the doubtful nature of the movements was due to the arrival of news from the mine to the effect that a reef had been cut in the No. 2 shaft at a depth of 600 feet. Primroses and Nigels were strong, the former rising to 2$\frac{1}{2}$ and the latter to 3$\frac{1}{2}$. Rand Mines went up to 11$\frac{1}{4}$, Simmers to 8$\frac{1}{8}$. Glencairns improved to 34s. 6d., and there were advances in Ferreira, Chimes, Stanhope, South Simmer, Champ d'Or Deep, Modderfontein, and Metropolitan. Small reactions were shown by City and Suburban, Crown Reef, Geldenhuis Estate, Geldenhuis Deep, Heriot, Robinson, Meyer and Charlton, Village Main Reef, Knight, and Buffelsdoorn. Chartered and Bechs. kept strong, the former at 38s, and the latter at 27s. Alexandra Estates were also in demand. Among diamond shares De Beers were $\frac{1}{8}$ better, and Jagersfontein stationary. To-day the markets opened fairly strong, but towards the close they are somewhat off colour. Without exhibiting any positive tendency downwards they have lost something of the buoyancy which distinguished them. Diamond shares have been dull; the only features having been a small rise in De Beers and a demand for Otto's Kopje. Lands have been doubtful in tone. Chartered are somewhat off at 27s. 6d.; but in more unpretending quarters Alexandra Estates have gone up to 6s. Beyond this there has been nothing to record.

Risen: African Consolidated, 3d.; Afrikander, 1s. 3d.; Alexandra Estate, 1s.; Bantjes, 6d.; Bechuanaland, 1s.; Block B, 1s.; Bultfontein Consolidated, 6d.; Champ d'Or, 2s. 6d.; Champ d'Or Deep, 2s. 6d.; Chartered, 1s.; City and Suburban, 7s. 6d.; Chartered Gold Fields, 2s. 6d.; Crown Reef, 5s.; De Beers, 7s. 6d.; Exploration, 2s. 6d.; Exploring, 2s. 6d.; Glencairn, 2s. 6d.; Gold Fields of Mashonaland, 1s. 3d.; Grahamtown, 1s.; Hampton (Limited), 6s. 3d.; Henry Nourse, 5s.; Heriot, 5s.; Joe's Reef, 1s.; Jubilee, 2s. 6d.; Jumpers, 2s. 6d.; Kleinfontein, 5s.; Langlaagte, 2s. 6d.; Langlaagte Royal, 2s. 6d.; Modderfontein, 2s. 6d.; Mozambique, 3s. 9d.; New Chimes, 1s. 3d.; New Jagersfontein, 2s. 6d.; New Primrose, 5s.; New Virginia, 3d.; Nigel, 8s. 9d.; Nyassa, 1s. 3d.; Otto's Kopje, 3d.; Paarl Central, 1s.; Pigg's Peak, 6d.; Randfontein, £1 12s. 6d.; Read's Drift, 2s. 6d.; Rietfontein, 17s. 6d.; Robinson, 2s. 6d.; Salisbury, 7s. 6d.; South African Gold Trust, 1s. 3d.; Simmer and Jack, 2s. 6d.; Spitzkop, 3d.; South Reef, 1s.; Van Ryn, 2s. 6d.; Victory Main Reef, 2s. 6d.; Witwatersrand (Knight's), 1s. 6d.; Wolhuter, 2s. 6d.; Worcester (allowing for dividend), 4s. 6d.; Wemmer, 2s. 6d.; Zambesia, 2s. 6d.—Fallen: Agnes Block, 2s.; Barretts, 6d.; Meyer and Charlton, 2s. 6d.; Moodies (fully-paid), 6d.; North Transvaal Land, 1s.; Oceana, 2s. 6d.; Ophir, 3d.; Roodepoort (Kimberley), 6d.; Silati, 3d.; Stanhope (allowing for dividend), 5s.; United Ivy Reef, 1s. 3d.; Transvaal, Limited (15s. paid), 6d.

Miscellaneous Shares.

The outlook in the Miscellaneous department on Monday was a fairly hopeful one. West Australian shares were rather quiet, but there was considerable interest manifested in the Wentworth groups, due almost entirely to an encouraging cablegram to hand from the property. Wentworth Priority and Ordinary both improved 6d. to 10s. and 4s. 9d. respectively. Something of an improvement also took place in Indians. A rise of $\frac{1}{16}$ occurred in Champion Reef and Ooregum. Mysore Reef advanced 1s. 6d. Among Copper shares Rio Tinto gained $\frac{3}{8}$ to 14$\frac{5}{8}$. The making-up which commenced on Tuesday was a very favourable one. Business upon the new account was active. West Australian Gold Fields were buoyant, and the price left off 7-32 to the good at 2 15-32. Ooregum Ordinary and Preference were very firm at a rise of $\frac{1}{16}$ in each case, and St. John del Rey gained 6d. There were additional enquiries for Wentworth Priority and Ordinary, the former leaving off 1s. better. Elkhorn were higher to a similar extent. Such shares as Kapanga, Montana, Gravel Gold, Day Dawn P.C., and Caratal were all in demand at improvements ranging up to 6d. Rio Tinto left off $\frac{3}{8}$ better than on Monday. Business in the Miscellaneous market was restricted on Wednesday. West Australian Gold Fields were active, and closed at 2$\frac{1}{2}$; Bayley's Reward, after a rise and a relapse, finished at 20s. A few transactions were conducted in Aladdin and Wentworth Priority, the latter being 1s. to the good, while the former lost $\frac{1}{16}$. A quick movement occurred in Poorman, which at 3s. were up 1s. 3d. as compared with the previous day, and St. John del Rey, on some good buying, left off 2s. higher at 29s. 6d. Indians were quiet, while among copper shares Rio Tinto were strong at 15$\frac{1}{16}$, or a further improvement of $\frac{1}{4}$. The strength exhibited by the Miscellaneous section during the past week culminated on Thursday in an activity altogether unusual. Among the more buoyant shares were Columbian Hydraulics and Del Reys, which were strong on satisfactory reports from the property. West Australians were firm. West Australian Gold Fields rose 3-32, to 2$\frac{5}{8}$, and the shares of its sub-company, the White Feather, closed at $\frac{1}{2}$ prem., the issue having been over-applied for about five or six times. Hampton Lands improved 3-32 to 2$\frac{1}{4}$, Bayley's Reward were 1s. better at 21s., and Great Boulder were well in request. Mawson's Reward were quoted at 1$\frac{1}{16}$ to 1$\frac{3}{8}$, the price of London and Western Australian. In the Indian section Nundydroog, Mysore West, Mysore-Wynaad, and South-East Mysore advanced from 3d. to 10$\frac{1}{2}$d. Among copper shares Rio Tinto moved up $\frac{1}{4}$. West Australians have continued throughout to-day to monopolise attention in this market, the feature having been West Australian Gold Fields, which closed at 2$\frac{7}{8}$ to 3. Indians have been quiet, the one share of activity having been Ooregum, which were still strong.

Risen: Aladdin's Lamp, 3s. 9d.; Alamillos, 6d. (allowing for dividend); Argentine Concessions, 3d.; Australasian, 3d.; Bayley's Reward, 3s.; Brilliant, 1s.; Callao Bis, 6d.; Colar Central, 3d.; Colombian Hydraulic, 6d.; De Lamar, 6d.; Dickens Custer, 3d.; Elkhorn, 1s.; Fortuna, 1s. (allowing for dividend); Frontino, 1s. (allowing for dividend); Golden Leaf, 6d.; Kangarilla, 3d.; Kapanga, 3d.; Linares, 12s. 6d. (allowing for dividend); Macate, 6d.; Mount Morgan, 1s. 3d.; Mysore West, 6d.; Mysore Wynaad, 1s.; Ooregum, 2s. 6d.; ditto Preference, 2s. 6d.; Pestarena, 1s. 9d.; Poorman, 1s. 9d.; Rio Tinto, 25s.; St. John del Rey, 3s.; Waihi Gold, 3s. 9d.; Wentworth Priority, 5s.; ditto Ordinary, 1s.; West Australian, 8s. 9d.—Fallen: Bonnie Dundee, 3d.; Brilliant Block, 1s. 3d.; Craven's, 3d.; Day Dawn, 6d.; East Kootenay, 1s.; Kaboonga, 3d.; Mill's Day Dawn, 1s. 3d.; Mysore Reefs, 2s. 6d. (allowing for call); New Queen, 3d.; Nine Reefs (9s. paid), 3s.; ditto fully paid, 6d.; Nundydroog, 1s. 3d.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follow:—

CONSOLS, Thursday, October 4.

STOCKS AND SHARES.

Continuation Days.	Ticket Days.	Pay Days.
Wednesday, Sept. 26	Thursday, Sept. 27	Friday, Sept. 28

The directors of the COLOMBIAN HYDRAULIC MINING COMPANY declared, on the 12th inst., a dividend (20th dividend) of 1s. per share, free of income tax, payable on 2nd October, on the shares as they stand on the register of members on the 16th September, 1894.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

AFRIKANDER GOLD.—Return of gold won for the month of August was 300 ounces from 1200 tons milled and 345 ounces from 1300 tons of tailings treated by cyanide, the total being 645 ounces.

APPANTOO.—A cable has been received from the mines stating the return for last month is 308 ounces.

BARRETT GOLD.—August gold yield 252 ounces (July 227 ounces).

BAYLEY'S REWARD.—The following cablegram has been received from Melbourne by the London office:—"Week's run 700 ounces from 74 tons."

BAKER'S CREEK.—Mr. Samuel James, of 3, Copthall Chambers, has received a cablegram from Adelaide, dated the 10th instant, as follows:—"Baker's Creek. Dividend declared 1s. per share." Including the above, this company has paid 5s. in dividends this year. Result of crushing for fortnight ended September 7, 960 ounces retorted gold.

BLOCK B. LANGLAAGTE.—Production for August: By cable: Mill: Ore crushed 7143 tons of 2000 lbs. Gold retorted 2023 ounces.—Tailings, cyanide process: Tons treated 6880 tons of 2000 lbs. Gold recovered 986 ounces.—Concentrates, cyanide process: Tons treated 152 tons of 2000 lbs. Gold recovered 262 ounces. Total gold recovered 3271 ounces.

BLUE SPUR AND GABRIELS GULLY.—A cablegram received from the manager reports that the amount of gold won for the period from 30th June to 8th September, 1894, was 657 ounces.

CAYLLOMA SILVER.—A cable message has been received from the mines reporting August production 10,000 ounces fine in ores shipped, 10,000 ounces fine bullion. It is stated that there is reason to hope Toro will be clear of water by the 20th inst.

CITY AND SUBURBAN.—Last month's crushing yielded 8569 ounces, against 6065 ounces for July.

COLOMBIAN HYDRAULIC.—The following cablegram of the result of run No. 196 has been received:—"We have cleaned up after a run of 44 days, during which time we have washed 950 hours. The gross returns are £2450. The net profit is £1450."

COROMANDEL.—During the week the shaft has been sunk 11 feet. The tributers working on the new vein have crushed 130 lbs. weight specimen stone, producing 350 ounces of gold. The reef shows gold freely. The tributers working on small vein crushed 6 tons quartz and obtained 90 ounces of gold.

CRAVEN'S CALEDONIA.—220 tons yielding 415 ounces of gold. Partial clean up.

CROWN REEF.—Result for August received by cablegram from Johannesburg, September 11:—"Number of days working 120 stamp mill 29 days 11 hours. Crushed by 120 stamp mill 17,553 tons. Accumulated tailings and slimes treated 7376 tons. Yield in smelted gold from 120 stamp mill 6613 ounces. Yield in smelted gold from cyanide works 2697 ounces. Yield in smelted gold from old cyanide works 1425 ounces; total, 10,735 ounces. Total profit for August £10,762. Total expenditure for month—revenue account £21,982. Revenue account £2902. Total, £24,884. Capital account £2670. Total £27,554.

DAY DAWN P.C.—Result of crushing for the fortnight ended September 8:—No. 1 shaft, 55 tons, 47 ounces; No. 3 shaft, 160 tons, 413 ounces; tailings, 10 ounces.

DE LAMAR.—Return for August: Crushed during the month 3763 tons; bullion produced in the mill $75,295; estimated value of shipping ore $5200; miscellaneous revenue $850; total produce $81,310; total expenses $38,780; estimated profit for the month $42,530, or at $4·90 to £ sterling.

DURBAN ROODEPORT.—The following results for August have been received by cable:—"70 stamps, running 28 days, milled 6350 tons quartz for 3112 ounces gold. 9600 tons of tailings treated in 28 days yielded 2023 ounces of gold; total 5135 ounces.

ELKHORN.—Cabled return for August: Mill worked 30 days and crushed 1194 tons; bullion produced in the mill $25,280; 141 tons of smelting ore sold $11,084; total produce $36,364; total expenses $22,725; estimated profit for the month $13,639, or, at $4·85 to £ sterling, £2812. The bullion produced in the mill for the week ended September 8 amounted to 9200 ounces.

FERREIRA.—Results for August:—Tons crushed, 4325; bar gold extracted, 4136 ounces; concentrates caught, 175 tons; assay value of concentrates, 6 ounces 7 dwts. fine gold per ton. Cyanide works: Bullion produced from tailings, 1007 ounces.

GELDENHUIS ESTATE.—A cablegram has been received from the head office at Johannesburg stating the following results for last month (August): Crushed 10,206 tons; obtained from mill 3724 ounces of gold; obtained from tailings by cyanide 2808 ounces of gold. Total 6532 ounces of gold.

GEORGE AND MAY.—Crushing for August 1325 ounces.

GINSBERG.—Result of August crushing: 1114 tons produced 541 ounces of gold. The total for July was 615 ounces.

GLENCAIRN MAIN REEF.—Production for August: 1849 ounces from 5503 tons; battery 1661 ounces from 5250 tons cyanide; 50 stamps 29 days. Mill return will improve September. For July the total production was 3475 ounces.

GRAVEL GOLD.—The following cablegram from the mine was received on September 10:—"We have recommenced washing on the Rica bank."

HARQUAHALA.—Estimated return for August: Crushed during the month, 3320 tons; estimated gross value of gold produced, $24,600; miscellaneous revenue, $500; total, $25,100; estimated total expenses, $11,500; estimated profit for the month, $13,600, or $4·90 to £ sterling, £2775.

HENRY NOURSE.—Crushing for August: 29 days, 2270 tons produced 1489 ounces. Cyanide works, 1800 tons produced 648 ounces. Total, 2137 ounces.

ISLAND BLOCK.—A cablegram has been received to the effect that during the last two months 240 ounces of gold have been secured, the expenses at the mine having been about 80 per cent., exclusive of royalty 8 per cent.

ISLE OF MAN.—The secretary has sold 100 tons of this company's ore at £8 1s. per ton.

KAPANGA.—Cablegram received from the manager:—"Kapanga: During the week the shaft has been sunk 6 feet.—Coromandel: During the week the shaft has been sunk 11 feet. The tributers working on the new vein have crushed 130 lbs. weight specimen stone, producing 350 ounces of gold. The reef shows gold freely. The tributers working on small veins crushed 6 tons quartz, and obtained 90 ounces of gold."

MOODIE'S.—Returns for August: Claims rented or leased from the company 250; number of tons crushed by claim holders 575; yield of gold 525 ounces.

KEMPINKOTE.—The directors have received the following telegram from the mine, dated 12th September, viz.:—"Henty's shaft. Drift is in quartz assaying 5 dwts. per ton. We have a good hanging wall but have not discovered any footwall."

LANGLAAGTE ESTATE.—Production for August: By cable: Mill: Stamps running 160: ore crushed 21,993 tons of 2000 lbs. Gold retorted 7193 ounces.—Tailings, cyanide process: Tons treated 19,750 tons of 2000 lbs. Gold recovered 3123 ounces.—Concentrates, cyanide process: Tons treated 360 tons of 2000 lbs. Gold recovered 1037 ounces. Total gold recovered 11,353 ounces.

LAS CABESSES MANGANESE.—Production for the week ending September 8 (six working days) 706 tons, or a daily average of 117 tons.

LISBON BERLYN.—A cablegram from the manager gives the following results for August:—"Tailings treated by cyanide 1400 tons; recovered 585 ounces. Milled 1300 tons; recovered 125 ounces. Total recovered 710 ounces."

MAIN REEF.—During August crushed 4005 tons, obtained 655 ounces of gold; also 350 ounces from tailings; total, 1005 ounces.

MAY CONSOLIDATED.—The following cable message, dated Johannesburg, September 7, has been received:—"The yield of gold during the past month (August) was 2100 ounces from 6500 tons crushed. Mill running 30 days."

MEYER AND CHARLTON.—Crushed during August 3913 tons, obtained 2205 ounces of gold. 864 ounces also recovered from tailings. Total, 3069 ounces. Estimated profit, £5212.

MOONSTONE UNITED.—Cablegram dated Croydon September 11:—"45 tons of ore crushed have yielded 187 ounces of retorted gold. Face is improving in value. Shall crush again in seven weeks."

NEW CLEWER ESTATE.—The profit for last month (August) was £3250, after deducting £150 for royalties.

NEW CHIMES.—Result of last month's crushing 2453 ounces of gold, against 2416 ounces for July.

NEW KLEINFONTEIN.—Last month's crushing of 4270 tons yielded 1770 ounces of gold; cyanide, 3770 tons yielded 635 ounces of gold. The profit is £2740. Developed, 7000 tons; ore reserves, 56,000 tons.

NEW PRIMROSE.—Production for August, 7235 ounces; profit, £10,190; 100 stamps, 29 days. For July the total was 7338 ounces.

NEW RIETFONTEIN.—Crushed during August 2280 tons, obtained 783 ounces of gold. Cyanide works treated 1824 tons of tailings, yielding 397 ounces. Total, 1180 ounces. Have struck reef at a depth of 600 feet in No. 2 shaft. At point of intersection vein looks poor, but rich chutes of ore are lying to the east.

NORTH SMITHFIELD.—Mr. Samuel James, of 3, Copthall Chambers, has received the following cablegram from Gympie, dated 12th inst.:—"North Smithfield crushed 730 tons, yielding 1614 ounces of gold. Dividend declared 1s. 9d. per share."

ORITA.—The directors have received the following cablegram from their superintendent relating to run No. 80:—"We have cleaned up £200; the cost during the run is £200. We have recommenced washing."

PAARL CENTRAL.—A cablegram has been received from the head office at Johannesburg, stating the following results for last month (August):—"Mill crushed 3908 tons, yielding 1448 ounces of gold. Cyanide works treated 2820 tons, yielding 502 ounces of gold. Total, 1950 ounces of gold. Total value, £7000."

PALMAREJO.—Return for August: Worked 1400 tons producing $47,000; expenses for month $31,000.

PRINCESS ESTATE.—The Transvaal Mortgage Loan and Finance Company (Limited) has received a cablegram from the head office of the Princess Estate and Gold Mining Company (Limited) stating that 2900 tons crushed during August, yielding 1400 ounces of smelted gold and 570 ounces of gold from tailings.

RANDFONTEIN ESTATES.—Production for August: By cable: "Mill: Ore crushed 6775 tons of 2000 lbs. Gold retorted 2948 ounces.—Tailings, cyanide process: Tons treated 5250 tons of 2000 lbs. Gold recovered 649 ounces. Total gold recovered 3597 ounces."

ROBINSON.—The following cable from the head office at Johannesburg was received on the 8th:—"Profit on month of August, £27,250."

ROODEPOORT UNITED.—Crushing for August: 3715 tons produced 1765 ounces. Cyanide works produced 1166 ounces. Total, 2931 ounces. Profit for month, £3100.

SIERRA BUTTES.—Result of the working at the mines for August: Sierra Buttes Mine. Total receipts, $2501, equals £500; total working expenses, $1500, equal £300. Uncle Sam Mine—Total receipts, $15,073, equals £3014; total working expenses, $8553, equals £1710.

SIMMER AND JACK.—Crushed 10,262 tons; obtained 3864 ounces of gold from the mill, 143 ounces of gold by chlorination, and 324 ounces of gold by chlorination from bought concentrates and 2524 ounces of gold from tailings by cyanide during the month. Last month's profit was £5500. The total production in July was 4447 ounces.

TRANSVAAL COAL.—The following is copy of a cablegram which has been received from the Transvaal Coal Trust Company (Limited) at Johannesburg with reference to that company's operations for the month of August:—"Output 24,500 tons. Profit, £4600."

VICTORIA AND QUEEN.—The London office has received the following cablegram from the head office in Charters Towers:—"Have cleaned up after crushing 110 tons for 94 ounces of gold."

VICTORIA GOLD MINING ASSOCIATION.—The fortnightly crushing has been cabled as follows:—"244 tons crushed yielded 587 ounces gold."

WEMMER GOLD.—The result of August work is received by cable, and is as follows:—"4750 tons crushed, yielding 2497 ounces of gold. 40 stamps working 30 days."

WENTWORTH GOLD FIELDS PROPRIETARY.—Cablegram from the mines:—"During the last four weeks we have crushed 680 tons of ore, yielding 990 ounces of gold. We are now cutting station at the 800 feet level new main shaft. Expectations have not been realised on the 500 feet level Phœnix underlay shaft. We have struck rich arsenical pyrites on the 500 feet level in Wentworth property from extension of Aladdin's Lamp south-east drive."

WOLHUTER.—Crushing for August, 1725 ounces from 3430 tons; 810 ounces from tailings. The total for July was 2260 ounces.

ZEEHAN-MONTANA.—The following telegram has been received, dated Hobart, 11th inst.:—"Milled 350 tons of ore for 35 tons concentrates containing about 26¼ tons of lead and 3325 ounces of silver."

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, SEPTEMBER 14.

Copper.

THE G.M.B. market has been quite brisk this week, with a great deal of covering taking place, and prices have gone up very considerably, as shown below. All other sorts of copper (consumers' and manufactured) are dearer likewise, although business in them has not been on a large scale. No doubt, however, if the firmness in the G.M.B. market continues, a large demand for manufactured copper will spring up. On Monday, G.M.B.'s opened at £39 18s. 9d. s.c., and advanced 1s. 3d. per ton. On Tuesday, £40 3s. 9d. was reached, on Wednesday £40 7s. 6d., on Thursday £40 12s. 6d., and to-day £40 18s. 9d., a total rise of 20s. per ton over the opening price. The market closes firm at £40 18s. 9d. to £41 s.c., and £41 6s. 3d. to £41 7s. 6d. three months. The turnover has averaged over 750 tons per day.

Tin.

Notwithstanding the continuous efforts to depress prices on the part of the "bear," the market has been steady, and even closes 5s. to 7s. 6d. per ton higher than at the end of last week, the public continuing to consider the present value of the article cheap, especially as there are chances of a general improvement in trade, which must, of course, if it takes place, greatly benefit tin. The "bears" are misrepresenting the state of the market by means of circulars and letters to the newspapers, in which they endeavour to convince the public that a "corner" is being worked. So far there has, however, as a matter of fact, been no attempt to create a "corner," and there is indeed plenty of tin to be bought every day and at cheap prices, as yet. The market opened on Monday quiet at £71 10s. s.c. Straits, whilst £71 5s. was accepted on Tuesday, and £71 on Wednesday and Thursday. On the last named day, however, £71 7s. 6d. was done, and to-day the firmer tone continued, with the result that £72 was ultimately paid. The market closes quiet at £72 to £72 5s. s.c. and £72 2s. 6d. to £72 5s. three months. Billiton tin opened at 43½ fl. s.c. and has undergone no change. Three months opened likewise at 43½, but closes at 43¾; Banca, which stood at 44½ fl. at last week's close, is now quoted 43¾.

Pig Iron.

The Glasgow market has been firm this week, and during the first half of the weak at advancing prices. The output of iron in Scotland has shrunk to very small dimensions, whilst a lot of miners are still "out." The opening value of Scotch s.c. was 43s. 7d., and on Thursday the price had reached 44s. 2½d. A reaction then sent values back to 43s. 9d. The close is firm at 43s. 10½d. s.c., Scotch buyers, Hematite is quoted 44s. 9½d., and Middlesbrough 36s. 6½d.

Lead

is steady at £9 17s. 6d., soft foreign, and £10 English. There is no noteworthy feature to record.

Spelter

declined from £15 11s. 3d. to £15 7s. 6d. for ordinaries, but closed a shade firmer at £15 8s. 9d., buyers of ordinaries, and £15 11s. 3d. specials.

Antimony

is firm and unchanged at £32 to £33.

Quicksilver

is quoted £6 10s. firsts and £6 9s. seconds, *i.e.*, the same as at the end of last week.

The following are to-night's (September 14) prices of metals;—

	£ s. d.	£ s. d.
Copper.		
Tough cake and ingot	43 0 0	43 12 6
Best selected	43 12 6	44 12 6
Sheets and sheathing	—	52 0 0
Flat bottoms	—	55 0 0
Chili bars (spot, & 3 months respectively)	40 18 9	41 6 3
Good merchantable, (spot, & 3 months respectively)	40 18 9	41 6 3
Copper tubes, seamless	—	0 0 7¼
Alloys.		
Brass: Wire	—	0 0 6¾
,, Tubes (solid drawn)	—	0 0 5¾
,, Sheets	—	0 0 5¾
Phosphor Bronze: Alloys II.	—	78 0 0
,, ,, III. or V (Cog Wheel Brand)	—	81 0 0
,, ,, VII.	—	83 0 0
,, ,, XI.	—	78 0 0
,, ,, Vulcan brand A1	—	72 0 0
Duro Metal	—	73 0 0
Bull's Metal	—	65 0 0
Ferrobronze (Vivian's).		
Ingots ...per lb.	0 0 5¾	—
Ordinary sheets, plates, bolts and bars	0 0 6¾	—
Screw bolts and nuts	0 0 7¾	—
Pump rods, plain	0 0 6¾	—
,, finished	0 0 9¾	—
Delta Metal: No. 4 (per ton)	—	73 10
,, Sheets and plates (per lb.)	0 0 10½	—
,, Bars, round, square, flat (per lb.)	0 0 9¾	—
,, ,, hexagon (per lb.)	0 0 9	—
Tin.		
English, ingots, f.o.b.	73 15 0	74 15 0
,, bars	74 15 0	75 15 0
,, refined	75 15 0	76 15 0
Straits, spot and 3 months respectively	72 0 0	72 2 6
Australian spot, and three months respectively	72 7 6	72 10 0
Banca ,, (in Holland)	73 7 6	73 10 0
Tin Plates: Charcoal, best quality per box	0 14 0	0 16 0
,, ,, ordinary	0 11 6	0 12 6
,, Coke, best quality	0 10 9	0 11 0
,, ,, ordinary	—	0 10 3

These prices of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

Iron.		
Pig, G.M.B., f.o.b., Clyde, spot	—	2 3 10¾
,, Scotch pig, No. 1 Gartsherrie	—	nominal
,, ,, Coltness	—	2 19 0
,, ,, Clyde	—	nominal
,, ,, Govan	—	2 4 0
Bars, Welsh, f.o.b. Wales	—	5 2 6
Plates ,,	—	5 2 6
Bars, Staffordshire, at works	—	5 5 0
Sheets ,, ,,	—	6 10 0
Plates ,, ,,	—	5 5 0
Hoops ,, ,,	—	5 12 6
Ship plates, Middlesborough	—	4 17 6
Steel: English spring (according to quality)	10 0 0	12 0 0
,, ,, cast (according to quality)	42 0 0	58 0 0
,, Rails at works, according to section	3 12 6	4 15 0
Lead.		
Spanish or soft foreign	—	9 17 6
English pig, common	—	10 0 0
,, L.B.	—	10 10 0
,, sheet and bar	—	11 0 0
,, pipe	—	11 10 0
,, red	—	12 5 0
,, white	—	16 10 0
,, patent shot	—	14 0 0
Spelter.		
Silesian ordinary brands	—	15 8 9
,, special brands	—	15 11 3
English Swansea	—	16 1 3
Sheet Zinc	18 15 0	19 0 0
Antimony.		
Antimony	32 0 0	33 0 0
Quicksilver.		
Flasks, 75 lbs. warrants	6 9 0	6 10 0
Ore, c.i.f., U.K. ports		per unit.
Manganese.		
1st quality, 50 per cent, and upwards	0 0 10¾	0 0 11¼
2nd ,, 47 per cent. to 50 per cent.	0 0 9	0 0 10
3rd ,, 40 ,, 47 per cent.	0 0 8	0 0 10
Aluminium.		Per lb.
93-99½ per cent. (guaranteed 98 per cent. min.)	in ingots (1 cwt. lots)	0 1 9¾
do do	(1 ton lots)	0 1 9
Nickel.		
98-99 per cent. guaranteed	0 1 6	0 1 8

A MINER named Wright was killed, and a companion, Henry Dunn, seriously injured by a fall of stone which occurred in the low main seam of Lord Pit, Wingate Grange Colliery, Durham. Wright was 27 years of age, and had recently married.

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron; *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver; *R*, Ruby; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "called up" column of British Mines, signifies that the mine is conducted on "Cost Book" principles; ‡ in the "Head Office" column of African Mines, signifies that the address given is not that of the head office, but of a sub- or transfer office and †, following the names of African mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct; we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name.	Closing Price, Sept. 14, 1894	Closing Price, Sept. 7, 1894.	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
			£ s.		£ s. d.			
Atlas .... *T*	—	—	1 0	—	1 0 0	12,000	Devon	Camborne.
Blue Hills ...... *CT*	5/- 10/-	5/-	*	2/- May, '81	5 12 6	5,353	Cornwall	Camborne.
Botallack ...... *T*	1 1¼	1	*	—	51 4 6	1,880	Cornwall	St. Just.
Carn Brea ...... *T*	6¾ 7¼	7¼	*	2/6 Dec., '93	21 18 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen .. *T*	2/6 7/6	5/-	*	—	35 15 11	4,900	Cornwall	Camborne.
Cumberland ...... *L*	—	—	1 0	5% May, '88	1 0 0	81,988	Cumberland...	7, Angel-court E.C.
Derwentwatr. *CLZ*	—	—	1 0	—	1 0 0	10,050	Cumberland..	Manchester.
Devon Gt Cons. *CA*	20/- 25/-	20/-	5 0	3/- May, '94	2 0 0	10,240	Devon	8, Finsbury-circus.
Dolcoath ...... *T*	70 71	72	*	12/6 Apr. '94	9 12 6	4,700	Cornwall	Camborne.
Drakewalls *CTM*	-/3 -/6	-/3	0 5	—	0 2 0	61,856	Cornwall	Dashwood House.
EastGrassington *L*	—	—	1 0	—	1 0 0	20,995	Yorkshire.....	5, Copthall-buildings
East Pool ...... *AT*	8¾ 9¼	9	*	1/6 June, '94	0 9 9	6,400	Cornwall	Illogan.
Gawton ...... *CA*	—	—	2 10	—	2 7 3	12,000	Devon	20, Great St. Helens.
Great Laxey...... *L*	1 2	1	4 0	5/- Apr., '92	4 0 0	15,000	Isle of Man ...	Douglas, Isl of Man.
Green Hurth ... *L*	1/3 1/9	1/3	1 0	-/6 June '89	0 19 0	32,000	Cumberland..	Newcastle.
Halkyn ...... *L*	—	—	1 0	2/- June, '94	1 0 0	10,000	Flintshire.....	Chester.
Hexworthy ...... *T*	—	—	1 0	—	1 0 0	14,634	Devon	6, Queen-street-place
Isle of Man ...... *L*	—	—	5 0	5/6 Sep. '93	5 0 0	14,000	Isle of Man ...	Chester.
Killifreth ...... *T*	2¾ 3	2¾	*	2/- July, '94	5 11 6	6,000	Cornwall	Truro.
Leadhills ...... *L*	17/6 22/6	17/6	6 0	3/- Sep. '92	6 0 0	20,000	Lanarkshire..	30, Finsbury-circus.
Levant ...... *CT*	—	—	*	2/6 July, '94	11 9 6	2,560	Cornwall	Penzance.
Lovell ...... *T*	—	—	*	1/3 Nov., '91	1 16 7	7,165	Wendron	3, Gt. Queen-st., S.W.
Minera...... *L*	—	—	5 0	5/6 Mar. '90	5 0 0	9,000	Denbighshire.	Minera, N. Wales.
Nenthd&Todle. *LZ*	-/6 1/-	-/6	1 0	6% Feb., '91	0 18 0	48,8¹5	Northumberld	Newcastle-on-Tyne
New Balleswidd'n *T*	—	—	1 0	—	1 0 0	25,000	Cornwall	St.Clement's Ho., E.C
NewCooksKitn. *TC*	—	—	*	—	10 18 3	4,900	Cornwall	Camborne.
New Minera	—	—	1 0	1/- Oct., '92	1 0 0	30,000	North Wales...	6 Queen-street-place.
Pedn-an-drea ... *T*	—	—	*	—	4 3 6	7,000	Cornwall	Redruth.
Phoenix United *TC*	1/- 3/-	1/-	*	1/- Mar. '90	7 4 6	10,668	Cornwall	Liskeard.
Polberro ...... *T*	20/- 25/-	20/-	*	—	3 7 9	18,000	Cornwall	37, Walbrook.
So. Condurrow *TC*	10/- 15/-	10/-	*	3/6 Apr. '93	18 0 0	6,123	Cornwall	20, Great St Helens
South Crofty *TA*	1¼ 1⅝	1⅝	*	—	17 7 6	6,120	Cornwall	Pool, Cornwall.
S. Frances Untd. *T*	15/- 20/-	5/-	*	—	2 7 6	6,000	Cornwall	Redruth.
Tincroft ...... *T*	11¾ 12¼	12⅛	*	5/- Aug. '94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale ...... *L*	7/-	7/-	4 0	1/3 Oct. '90	1 10 0	50,000	Durham......	3, Lombard-court.
West Frances ... *T*	1⅛ 2	1⅛	—	2/6 May, '89	16 0 7	6,144	Cornwall	Camborne.
West Kitty ...... *T*	6¾ 7¼	6¾	*	3/- Aug. '94	1 2 0	6,000	Cornwall	37, Walbrook.
Wheal Agar .. *TA*	2¼ 2½	2½	*	2/6 Aug. '88	23 5 2	6,000	Cornwall	Redruth.
Wheal Basset ... *TC*	1 1¼	1	*	10/- Apr. '88	12 9 6	6,144	Cornwall	Redruth.
Wheal Friendly.. *T*	-/6 1/-	-/6	*	—	0 12 9	10,000	Cornwall	110, Cannon-st., E.C.
Wheal Grenville *T*	18 19	18¼	*	5/- Aug. '94	18 8 0	6,000	Cornwall	7, Union-court, E.C.
Wheal Kitty...... *T*	12/6 17/6	12/6	*	3/- Mar. '88	4 5 6	8,590	Cornwall	Truro.
Wheal Metal &F. *T*	⅛ ¼	⅛	*	—	0 13 9	10,784	Cornwall	14, Broad-street Av.

AUSTRALIAN AND NEW ZEALAND MINES.

Name.	Closing Price, Sept. 14, 1894	Closing Price, Sept. 7, 1894.	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Achilles Gld Fld.	2/6 3/6	2/6	1 0	—	1 0 0	80,307	New Zealand	3, Church Pas., E.C.
Aladdins Lamp *G*	18/9 21/3	16/-	1 0	1/- Apr. '94	1 0 0	100,000	N S Wales ...	4-6, Throg. Avenue.
Amana (Went.) *G*	—	—	1 0	—	1 0 0	75,000	N. S. Wales ..	5, Throg. Avenue.
Amana (Went.) *G*	—	—	1 0	—	0 12 6	25,000	N. S. Wales ...	5, Throg. Avenue.
Anglo-Saxon ... *G*	—	—	1 0	2/- July, '89	1 0 0	51,000	Queensland ..	4, Lombard-court.
Australasian ..... *G*	2/- 2/6	1/9	1 0	-/6 Mar., '92	1 0 0	210,000	Queensland ..	6, Queen-st. place
Australian ...... *C*	—	—	20 0	1/6 July '94	7 7 6	18,315	So. Australia	15, Old Jewry Chbrs.
Aus. Bro. Hill Con.	2/3 2/9	2/3	1 0	1/- June, '91	1 0 0	537,138	N. S. Wales ...	Winchester House.
Baker's Creek ... *G*	1¼ 1⅜	1¼	1 0	1/- Sept. '94	0 17 6	100,000	N. S. Wales ...	Hillgrove, N.S.Wales
Bayley's Reward *G*	21/- 23/-	18/-	1 0	-/4 Aug. '94	1 0 0	480,000	W. Australia..	2, Met. Ex. Buildings
Blue Spur & G. G.	-/6 1/-	-/6	1 0	—	1 0 0	80,098	New Zealand	6, Gt. St. Helens'
Bonnie Dundee *G*	3/3 3/9	3/6	1 0	—	0 18 0	120,000	Queensland ...	3-5, Gracechurch-st.
Do. Pref.........	—	—	1 0	2/- May, 94	1 0 0	7,268	Queensland ...	3-5, Gracechurch st.
Brilliant.. ...... *G*	12/- 13/-	11/-	2 0	-/3 Aug. '94	2 0 0	250,000	Queensland ..	Charters Towers.
Brilliant Block .. *G*	1¼ 1⅜	1⁵⁄₁₆	2 0	-/9 Aug. '94	2 0 0	250,000	Queensland ..	3, Gracechurch-st.
Brilliant, St. Geo.	16/- 18/-	16/-	0 10	3d. Aug. 94	0 6 3	72,000	Queensland ..	Charters Towers.
Brit. Brok. Hill *S*	4/6 5/6	4/6	5 0	—	5 0 0	240,000	N. S. Wales ...	Dashwood Ho., E C.
Broken Hill Prop.	2⅞ 3	2¹³⁄₁₆	0 8	1/- Aug. '94	0 8 0	960,000	N. S. Wales ...	Dashwood Ho., E C.
Brkn. Hill P. Bl. 10	—	—	10 0	1/- Feb. 94	9 13 0	100,000	N. S. Wales ...	117, Leadenhallst. EC
Brkn. Hill P. Bl. 14	—	—	5 0	—	5 0 0	10,000	N. S. Wales ...	117, Leadenhallst. EC
Carrington......... *G*	1/- 1/6	1/-	12/6	—	0 12 6	100,007	Queensland ...	9, Tokenhouse Yard.
Craven's Cal. ... *G*	4/3 4/9	4/6	0 6	-/3 June '94	0 4 8	100,000	Queensland...	30-1, S Swithin's-la.
Croydon King B. *G*	—	—	0 5	—	0 5 0	60,000	N. Queensland	Leadenhall Blg. E.C.
Cumbrlnd (New) *G*	-/9 1/3	-/9	1 0	2/6 Dec. '87	1 0 0	184,590	Queensland ...	Blomfield House E.C
DayDawn P.&W. *G*	6/- 6/6	6/-	1 0	-/6 Mar. 93	1 0 0	498,400	Queensland ...	3-5, Gracechurch-st.
Day Dawn P. C. *G*	3/9 4/3	3/9	1 0	-/6 Apr. '92	1 0 0	490,000	Queensland ...	Winchester Ho., E.C
Eaglehawk......... *G*	1/- 1/6	1/-	1 0	—	0 19 6	120,000	Victoria.......	31, Lombard-street.
Eng. & Aus. Cop. *Cu*	¹⁄₁₆	¹⁄₁₆	2 0	2% 1883	1 17 6	70,000	So. Australia	136, Palmerston-blds
Eng. & Aus 6% Deb.	—	—	50 0	6% July, '94	50 0 0	700	So. Australia	136, Palmerston-blds
Etheridge ...... *G*	—	—	0 5	—	0 5 0	324,790	Queensland ..	6-7, Queen-street-pl.
Frederick the Gt. *G*	—	—	1 0	—	1 0 0	125,000	Victoria.........	St. George's House.
Glenrock ...... *G*	1/- 1/6	1/-	1 0	—	0 19 6	225,000	N. Zealand ..	3-5, Queen-st., E.C.
Great Boulder .. *G*	par. ¼ pm.	—	1 0	—	0 10 0	100,000	W. Australia...	3, Gracechurch st.
Golden Gate..... *G*	1/3 1/9	1/3	0 10	—	0 10 0	150,000	Queensland..	9, Tokenhouse Yard.
Harrietville ...... *G*	—	—	1 0	-/6 July, '90	1 0 0	146,330	Victoria........	6-7, Queen-street-pl.
Kaboonga .... *G*	1/- 1/6	1/3	0 10	—	0 10 0	500,000	Queensland ..	70-71, Bishopsgate st.
Kangarilla ...... *S*	2/6 3/-	2/3	1 0	—	1 0 0	88,275	So. Australia	68, Coleman-street.
Kapanga......... *G*	3/9 4/3	3/6	1 0	-/6 Jan. '91	0 19 0	250,000	N. Zealand ..	9, New Broad-street.
Kilkivan......... *G*	1/6 2/-	1/6	1 0	—	1 0 0	81,392	Queensland ...	4, Coleman-street.
Midas G. F. ... *G*	—	—	1 0	—	1 0 0	180,000	Victoria.........	32, Poultry, E.C.
Mills' Day Dawn *G*	1¼ 1⅜	1⁵⁄₁₆	1 0	-/6 Sept. '94	0 15 9	300,000	Queensland ..	3, Gracechurch-st.
Moruya .... *GS*	—	—	1 0	—	1 0 0	53,235	N. S. Wales ..	16, St. Helen's-place.
Mosman .... *G*	1/3 1/9	1/3	1 0	-/3 Jan., '94	1 0 0	185,000	Queensland ...	3-5, Gracechurch-st.
Mt. Leyshon ..... *G*	-/6 1/-	-/6	1 0	-/6 Dec. '90	1 0 0	157,989	Queensland ...	7, Draper's-gardens.
Mountain Maid *G*	2/- 3/-	2/-	0 10	—	0 6 3	56,000	Queensland..	Leadenhall Bldgs.
Mount Morgan *G*	2⁵⁄₁₆ 2⁹⁄₁₆	2⅜	1 0	-/6 Aug. '9	0 17 6	1,000,000	Queensland ...	50, Lime-street.
Mt. Shamrock *GB*	—	—	1 0	—	1 0 0	275,000	Queensland ..	9, Tokenhouse-yard.
Mount Zeehan *SL*	-/6 1/-	-/6	1 0	—	1 0 0	193,257	Tasmania	Mansion Ho. Cham.
N. Smithfield .. *G*	—	—	0 10	3/- July, '94	0 10 0	48,000	Gympie.........	Queensland.
New Queen ... *G*	6/- 6/6	6/3	1 0	-/6 Apr., '94	0 19 6	158,915	Queensland ...	30, St. Swithin's-la.
No. 7 N. E. Queen	-/6 1/-	-/6	0 10	-/3 Sept. '92	0 8 9	96,000	Queensland ...	30, St. Swithin's-ln.
PhœnixGold.PileG	—	—	0 5	-/9 Aug. '94	0 5 0	48,000	Gympie.........	Gympie, Queensland
Port Phillip ..... *G*	—	—	0 5	—	0 5 0	200,000	Victoria	57, Moorgate-st., E.C
Queen's Bthdy Un	—	—	1 0	—	0 12 6	75,000	Victoria	7-8, Gt. Wnchster St.
Queens Smelting	¹⁄₁₆ ⅛	¹⁄₁₆	0	—	1 0 0	36,244	Queensland ..	9, Tokenhouse Yard.
ScottishAustralian	⅝ 1	⅜	1 0	44-5d. May.'94	1 0 0	200,00	N.S. Wales ...	Winchester Ho. E.C.
Sunburst......... *G*	—	—	0 10	-/6 Mar. '92	0 10 0	150,000	Queensland ...	9, Tokenhouse Yard.
Tasmanian Crown	—	—	1 0	—	1 0 0	125,990	Tasmania	5, Old Jewry, E.C.
Tipperary .... *G*	—	—	1 0	—	1 0 0	35,000	N. Zealand ...	3-5, Queen-st., E.C.
True Blue .... *G*	—	—	1 0	-/3 July, '94	1 0 0	53,000	Australia	Leadenhall Blg. E.C.
Victoria Associatn.	—	—	1 0	-/3 Aug. '94	1 0 0	144,000	Char. Towers	6, Crosby-square
Victory......... *G*	6/- 8/-	6/-	0 5	-/6 Mar., '94	0 5 0	200,000	Queensland ...	32, Gresham-st., E.C
Waihi......... *G*	1¹³⁄₁₆ 2¹⁄₁₆	1¾	1 0	1/- June '94	1 0 0	150,000	New Zealand	11, Abchurch-l'n. E.C
Wentworth Ord. *G*	4/6 5/6	3/6	1 0	—	1 0 0	350,000	N. S. Wales ..	4-6, Throgmort. Av.
Went. Priority... *G*	12/- 14/-	7/-	1 0	6/- Jan. '93	1 0 0	150,000	N. S. Wales ..	4-6, Throgmort. Av.
W. Argentine ... *G*	-/9 1/3	-/9	1 0	—	0 19 6	150,000	N. Zealand ...	3-5, Queen-street.
W. Aust. Corgesan	1⅜ 1⅝	1⅜	1 0	—	1 0 0	25,000	W. Australia...	33, Old Broad st., EC
W. Australian G F.	2⅞ 3	2¹⁄₁₆	1 0	—	1 0 0	} 65,000	W. Australia...	28-29, S. Swithin's-ln.
W. Australian G.F.	—	11/3	1 0	—	0 4 0		W. Australia...	28-29, S Swithin's-ln
Zeehan Montana *S*	—	—	1 0	8d Aug., 94	1 0 0	66,000	Tasmania ...	11, Queen Victoria st
Zeehan Montana *S*	—	—	1 0	5d Aug., 94	0 12 6	12,600	Tasmania	11, Queen Victoria st

EUROPEAN MINES.

Name.	Closing Price, Sept. 14, 1894	Closing Price, Sept. 7, 1894.	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Alamillos .... *L*	10/- 15/-	10/-	2 0	-/6 Sept. '94	2 0 0	35,000	Spain	6, Queen-street-place
Avala .... *Q*	0 ⅛	0	1 0	1/- May '93	1 0 0	150,047	Servia.........	4, Tokenho. B'dgs.
Consett Ore ...... *I*	5⅜ xd	5⅜ xd	1 0	5/- July '94	1 0 0	55,200	Spain	19, Grey-st., N'castle.
English Cr. Spelter	⅜ ⅝	⅜	1 0	2½% Aug. '94	1 0 0	84,000	Lombardy	9, Queen-street-place
Fortuna .... *L*	12/6 17/6	12/6	2 0	1/- Sept. '94	2 0 0	25,000	Spain	6, Queen-street-place
Libiola......... *C*	3⅛ 3⅜	3⅜	5 0	2/6 Aug. 94	5 0 0	50,400	Italy	Dashwood Ho., E.C.
Linares .... *L*	3⅛ 3⅜	3⅛	3 0	5/- Sept, '94	3 0 0	14,998	Spain	6, Queen-street-place
Marbella .... *I*	3 3⅜ xd	2⅜	10 0	8/- Mar. '93	10 0 0	25,000	Spain	78, Queen Victoria-st.
Mason & Barry... *C*	2⅜ 3	2⅜	5 0	2/- May. '94	5 0 0	185,172	Portugal	57, Cannon-street.
Oscar .... *G*	—	—	5 0	—	0 4 6	117,240	Norway	6A, Austin Friars.
Pestarena .... *G*	4/3 4/9	2/6	3 0	—	3 0 0	67,909	Italy	6-7, Queen-street-pl.
Pontgibaud......... *L*	—	—	20 0	11/5Dec.'93	20 0 0	14,000	France	6-7, Queen-street-pl.
Rio Tinto .... *C*	15⁵⁄₁₆ 15⁹⁄₁₆	14⁹⁄₁₆	10 0	7/- May, '94	10 0 0	325,000	Spain	30, St. Swithin's-lane
Do. (Mort. Bonds)	104 106	104	100 0	5% July, '94	100 0 0	£1292,740	Spain	30, St. Swithin's-lane
Do. (2nd do.)	102 104	102	100 0	5% July, '94	100 0 0	£1024,860	Spain	30, St. Swithin's-lane
Do. (3rd do.)	100 102	100	100 0	5 p.c. July, 94	100 0 0	£517,080	Spain	30, St. Swithin's lane
Ripanji .... *SQ*	12/- 14/-	12/-	1 0	—	0 19 0	95,000	Servia.........	120, Bishopsgt-st. Wn.
Tharsis......... *C Sul*	4⅜ 4⅝	4⅜	2 0	12½% Mar. '94	2 0 0	625,000	Spain	Glasgow.
West Prus Pre.pref	—	—	10 0	8% June '94	10 0 0	365	Germany	Walbrook Ho., E.C.
West Prussian Pre.	—	—	10 0	8% June, '94	10 0 0	5,450	Germany	Walbrook Ho., E.C.
West Prussian Or.	—	—	10 0	8% June, '94	10 0 0	14,050	Germany	Walbrook Ho., E.C.
Wohlfahrt .... *L*	—	—	1 0	3% June, '94	1 0 0	99,634	Prussia	17, Victoria-st., S.W.
Wohlfahrt	—	—	1 0	3% June, '94	0 18 0	9,000	Prussia	17, Victoria-st., S.W.

INDIAN AND ASIATIC MINES.

Name.	Closing Price, Sept. 14, 1894	Closing Price, Sept 7, 1894.	Par.	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Asia Minor Pref. *Sl.*	—	—	0 10	—	0 10 0	42,430	Asia Minor ...	2, Metal Ex. Bldgs.
Do. Ord. ...	—	—	0 10	—	9	51,584	Asia Minor ...	2, Metal Ex. Bldgs.
Balaghat Mysore *G*	7/- 8/-	7/-	1 0	—	0 18 0	160,000	India	6-7, Queen-street-pl
Burma Ruby...... *R*	3/- 4/-	3/-	1 0	—	0 17 0	300,000	Burmah	Suffolk House, E.C.
Champion Reef... *G*	3¹¹⁄₁₆ 3¹³⁄₁₆ xd	3¹¹⁄₁₆	1 0	2/- Aug. '94	1 0 0	200,000	India	6-7, Queen-street-pl
Colar Central .. *G*	-/5 -/9	-/3	1 0	—	1 0 0	200,000	India	Dashwood Ho., E.C.
Coromandel...... *G*	1/6 2/6	1/6	1 0	—	0 12 6	95,000	India	6-7, Queen-st.-place
DevAla Moyar ... *G*	—	—	1 0	—	1 0 0	200,000	India	34, Nicholas-lane
Gemming&Mining	—	—	2 0	—	1 7 6	19,594	Ceylon	183, Gresham House
GoldFldsMysore *G*	22/- 24/-	22/-	1 0	1/- July '92	1 0 0	220,000	India	6-7, Queen-street pl.
Gold Flds Siam *G*	—	—	1 0	—	1 0 0	150,000	Siam	19, St. Swithin's-lane.
Hyderabad Dec....	—	—	10 0	—	10 0 0	115,000	Deccan	16, St. Helen's-place
Kempinkote GdFd	4/- 4/6	4/-	0 5	—	0 3 6	665,473	India	6-7, Queen-st.-place.
Mysore .... *G*	2¹¹⁄₁₆ 2¹³⁄₁₆	2¹¹⁄₁₆	1 0	2/- July, '94	1 0 0	250,000	India	6-7, Queen-street pl
My. Barnhalli .. *G*	2/3 2/9	2/3	1 0	—	0 18 0	100,000	India	2, East India Avenue
Mysore Reefs ... *G*	9/- 10/-	10/6	1 0	—	1 0 0	134,788	India	6-7, Queen-street-pl
Mysore West(N) *G*	8/6 9/6	8/-	1 0	—	0 18 0	127,408	India	Dashwood Ho., E.C.
Mysore Wynaad *G*	8/- 9/-	7/-	1 0	—	0 18 0	250,000	India	Dashwood Ho., E.C.
Nine Reefs ...... *G*	4/- 4/6	4/6	0 10	—	0 10 0	50,000	India	6-7, Queen-street-pl
Nine Reefs	3/9 4/3	4/-	0 10	—	0 9 6	200,000	India	6-7, Queen-street-pl
Nundydroog...... *G*	1¹¹⁄₁₆ 1¹³⁄₁₆	1¹¹⁄₁₆	1 0	1/- Mar. '94	1 0 0	200,000	India	6-7, Queen-street-pl.
Ooregum (Df.O.) *G*	1⅝ 1¾	3⅛	1 0	4/6 July, '94	1 0 0	145,000	India	6-7, Queen-street-pl
Do. (10 % Pref.).	3⅜ 4	3⅝	1 0	4/- July, 94	1 0 0	95,536	India	6-7, Queen-street-pl.
Do. (10 % Pref.).	3 3¼	3	1 0	4/- July '94	0 5 0	24,464	India	6-7 Queen-street-pl.
Pahang Corpn. *T*	7/- 8/-	7/-	1 0	15% Apr. '89	1 0 0	203,070	Malay Penin.	Blomfield Ho., E.C.
Pahang Kabang *T*	¹⁄₁₆ ⁸⁄₁₆	¹⁄₁₆	1 0	—	1 0 0	394,750	Malay Penin.	4a, Jeffrey's sq., E.C.
South E. Mysore *G*	4/6 5/6	4/3	0 4	—	0 4 0	134,623	India	6-7, Queen-street-pl.

NORTH AMERICAN MINES.

Name.	Closing Price, Sept. 14, 1894	Closing Price, Sept 7, 1894.	Par.	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Alaska Mexican... *G*	—	—	$5	—	$5	160,000	Alaska.........	30, St. Swithin's-ln.
Alaska Treadwell *G*	3⅞ 4⅛	3⅞	$25	1/6 July, '94	$25	200,000	Alaska.........	30, St. Swithin's-ln.
Almada and T... *S*	-/3 -/9	-/3	2/6	—	0 2 6	351,008	Mexico	6, Queen-street-place
American Belle... *S*	2/- 2/6	2/-	1 0	-/6 Mar. '91	1 0 0	398,890	Colorado	25A, Old Broad-street
Anglo Mexican ... *S*	—	—	5 0	3/- Jan. '90	5 0 0	74,850	Mexico	23, College Hill.
Arizona (Pref.) *Cu*	9/-	9/-	4 0	—	4 0 0	158,920	Arizona.........	74, Geo.-st., Edinbor'
Do. 10 % Deben.	58 59	50	100 0	7% May '94	100 0 0	2,660	Arizona.........	74, Geo.-st., Edinbor'
Big Creek ...... *Ay.*	—	—	1 0	1/- Dec. '91	1 0 0	50,000	Nevada	2, Pancras-lane, E.C.
California .... *G*	—	—	0 10	-/6 May '90	0 8 9	129,571	Colorado	St. George's Ho E.C.
Canadian Phos. *P*	—	—	1 0	-/6 Nov. '90	1 0 0	73,334	Canada	155, Fenchurch-st.
Colorado Boy.. ... *S*	—	—	1 0	—	1 0 0	112,491	Colorado	Abchurch-chbrs, E.C
Cortez .... *S*	—	—	1 0	3 % Feb. '93	1 0 0	300,000	Nevada	Suffolk House, E.C.
Decatur......... *Sl.*	—	—	1 0	—	1 0 0	32,500	Colorado	35, Queen Victoria-st.
Do...... (Pref.)	—	—	1 0	—	1 0 0	12,500	Colorado	35, Queen Victoria-st
De Lamar...... *GS*	18/- 19/-	17/6	1 0	1/- June '94	1 0 0	400,000	Idaho.........	6, Draper's-gardens.
Dickens Custer *GS*	-/3 -/6	-/0	1 0	—	0 19 9	420,000	Idaho.........	Winchester Ho. E.C.
Elkhorn .... *S*	14/6 15/6	13/6	1 0	1/- Sept. '94	1 0 0	175,007	Montana	6, Draper's-gardens.
Emma .... *S*	-/2 -/4	-/2	0 5	—	0 5 0	403,618	Utah	15, Geo-st, Mansn. Ho
Flagstaff......... *S*	—	—	1 0	—	0 18 3	240,000	Utah	Dashwood Ho., E.C
Fisk......... *G*	—	—	1 0	6d May, 94	1 0 0	134,000	Colorado	5, Fenchurch st.
Garfield .... *GS*	—	—	1 0	-/6 Dec. '88	0 19 6	98,185	Nevada	Suffolk House, E.C.
Golden Feather *G*	9/6 10/6	9/6	1 0	—	1 0 0	180,000	California ...	8, Stephens Cs E.C.
Golden Gate..... *G*	5/- 6/-	5/-	1 0	—	0 19 6	79,600	California ...	St Stephens Cs E.C.
Golden Leaf..... *G*	4/6 5/-	4/-	1 0	—	1 0 0	300,259	Montana	8, Draper's Gardens.
Golden Valley... *G*	—	—	1 0	—	1 0 0	55,507	Colorado	15, Angel Court.
Harquahala...... *G*	6/- 7/- xd	6/-	1 0	-/9 June '94	1 0 0	300,000	Arizona	8, Draper's Gardens.
Holcomb Valley *G*	-/9 1/-	-/10½	0 5	—	0 5 0	540,000	California ...	14, Cornhill E.C.
Idaho......... *GS*	1/9 2/3	1/9	0 5	—	0 4 8	143,439	Idaho	140, Leadenhall-st.
Jackson Goldfields	-/6 1/-	—	5 0	—	0 5 0	408,635	California	11, Poultry, E.C.
Jay Hawk......... *G*	6/- 7/-	6/-	1 0	-/6 Dec. '92	1 0 0	285,000	Montana	Dashwood House.
Kohinoor "B" *GS*	—	—	1 0	-/6 June. '81	1 0 0	112,901	Colorado	Blomfield Ho., E.C.
La Plata......... *S*	-/4½ -/7½	-/4½	0 5	1/3 Oct. '93	0 4 3	405,000	Colorado	11, Poultry, E.C.
La Yesca .... *GS*	—	—	1 0	—	0 18 0	76,015	Mexico	20, Bucklersbury, EC
Maid of Erin ... *S*	—	—	1 0	4c. pshMar.'94	1 0 0	575,000	Colorado	43, Threadneedle-st.
Mammoth Gold ..	-/3 -/6	-/3	1 0	—	1 0 0	400,000	Pinal Arizona.	257, Winchester Ho.
Mesq. d'l Oro (P) *G*	—	—	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C.
Mesq. d'l Oro (?) *G*	—	—	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C.
Montana......... *GS*	14/6 15/6	14/6	1 0	5% April '91	0 19 0	657,158	Montana	Gresham House, E.C.
New Colorado ... *S*	—	—	1 0	—	0 17 0	65,000	Colorado	Abchurch Cham. E.C
N. Consolidated *SC*	—	—	0 5	—	0 3 6	248,576	Nevada	15, Angel-court, E.C
N. Gold Hill...... *G*	-/2 -/4	-/2	1 0	—	0 19 9	191,045	N. Carolina ...	15, George-st., E.C.
New Guston ...... *S*	13/9 16/3	13/9	1 0	1/- Oct. '92	1 0 0	110,000	Colorado	25A, Old Broad-st.
New Hoover Hill *G*	—	—	0 10	-/9 Dec. '85	0 10 0	120,000	N. Carolina ...	Langthorne Ho., E.C
New London ..... *G*	—	—	2/6	—	0 2 6	327,816	New Carolina	55, Bishopsgt.-st Wn
Palmarejo ...... *GS*	1/3 1/9	1/3	1 0	—	1 0 0	418,888	Mexico	4, Copthall-buildings
PinosAltos(Df) *GS*	6/6 7/6	6/6	1 0	-/6 Mar.' 90	1 0 0	100,000	Mexico	110, Cannon-street.
Do 15% Cum Pref	—	—	1 0	—	1 0 0	60,000	Mexico	110, Cannon street.
Pittsbg Con. (N) *G*	—	—	1 0	1/6 Mar. '88	1 0 0	77,147	Nevada	Suffolk House, E.C
Poorman Con. *GS*	2/9 3/-	1/-	0 5	—	0 5 0	273,948	Idaho	5, Copthall-b'gs. E.C
Red Mountain ... *S*	—	—	1 0	—	1 0 0	46,686	Colorado	11, Poultry, E.C.
Richmond ... *GSL*	7/6 10/-	7/6	5 0	1/- Sep. '93	5 0 0	54,000	Nevada	44, Coleman-street.
Ruby .... *GSL*	—	—	0 5	—	0 5 0	271,371	Nevada	22 St. Mary Axe.
Sierra Butter ... *G*	7/- 9/-	7/-	2 0	-/6 Apr. '94	2 0 0	122,500	California	138, Leadenhall-st.
Do. Plumas Eur. *G*	11/3 13/9	11/3	2 0	-/9 Apr. '94	2 0 0	140,265	California	138, Leadenhall-st.
Springdale......... *G*	1/6 2/-	1/6	$1	2d Aug., 94	$1	1,000,000	Colorado	20, Abchurch Lane.
Twin Lake Placers	—	—	1 0	1/3 Mar. '94	1 0 0	24,564	Colorado	5, Lawrence P. Hl. E.C
United Mexican *S*	1/- 1/6	1/3	1 0	2/6 May, '87	1 0 0	906,654	Mexico	3, Gt. Winchester st.

SOUTH AND CENTRAL AMERICAN MINES.

Name.	Closing Price, Sept. 14, 1894	Closing Price, Sept 7, 1894.	Par.	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Anglo-Chilian Pf *N*	5¼ 6	5¼	10 0	—	10 0 0	35,000	Antofagasta ...	123, Bishops.-st. W.
Do, 6% Rylst *MB*	92 95	92	100 0	—	100 0 0	£200,000	Antofagasta ...	123, Bishops.st. W.
Antio. (Pref.) *G.S.*	—	—	1 0	-/6 Mar. '90	1 0 0	22,827	Colombia	184, Gresham Ho.
Antioquia (ordiny)	—	—	1 0	—	1 0 0	42,453	Colombia	184, Gresham Ho.
Callao Bis... ...... *G*	-/9 1/3	-/6	1 0	—	1 0 0	316,248	Venezuela ...	50, Old Broad-street
Camarones........ *C*	—	—	2 0	—	2 0 0	87,000	Chili	123, Bishopsgt. Wn.
Caratal......... *G*	-/9 1/-	-/7½	2/6	—	0 2 6	1,330,000	Venezuela ...	57, Moorgate-st. E.C
Cayiloma......... *S*	—	—	2 0	1/- Apr. 94	2 0 0	125,000	Peru	52, Leadenhall street
Colon .... *G*	-/9 1/-	-/3	1 0	—	1 0 0	200,000	Colombia	5, Copthall-bdgs., E.C.
Colorado Nit. ... *N*	3 3⅛	3	5 0	4% June, '94	5 0 0	22,000	Chili	17, King-st., Liverp'l.
Colombia......... *G*	—	—	20 0	10 frs. Aug. 94	20 0 0	—	Venezuela......	Ciudad, Bolivar.
Colombian Hy.. *G*	12/6 13/6	12/-	1 0	1/- Sept. '94	1 0 0	75,000	Colombia	10, Blomfield-street.
Copiapo .... *C*	1¹³⁄₁₆ 2¹⁄₁₆	1¹³⁄₁₆	2 0	1/6 June '94	2 0 0	100,000	Chili	DashwoodHouse, E.C
Darien......... *G*	—	—	1 0	—	1 0 0	71,359	Colombia	Manchester.
Don Pedro......... *G*	4/6 5/6	4/6	1 0	—	0 16 6	133,102	Brazil.........	24-5, Devonsh., Cs E.C
El Callao .... *G*	10/- 15/-	10/-	5 0	9½d Feb. '94	5 0 0	857,600	Venezuela ...	8, Bishopsgt.-st. Wn.
Frontino & B.... *G*	22/- 24/-	22/-	1 0	1/- Sept., '94	1 0 0	128,667	Colombia	184, Gresham House.
Glenrock .... *G*	1/- 1/6	1/-	1 0	—	0 18 6	199,948	Argen. (& Ind)	3-5, Queen-street, E.C
Glenrock (Pref.)..	—	—	1 0	—	0 18 0	16,232	Argen. (& Ind)	3-5, Queen-street, E.C
Gravel .... *G*	5/- 6/-	5/-	1 0	—	0 19 6	100,000	Colombia	10, Blomfield-street
Guadalupe ...... *GS*	3/6 5/-	3/6	1 0	—	1 0 0	120,000	Honduras	11A, Union ct, Old Brd-st
Huanchaca .... *S*	171¼	—	5 0	3/9 Oct., '93	5 0 0	320,000	Bolivia	10, Avnu. d'Alma, Paris
Javali .... *G*	—	—	0 2	8¾ % '91	0 2 0	105,234	Nicaragua......	139, Cannon-street.
Julia Nit. .... *N*	—	—	5 0	—	5 0 0	30,000	Chili	79¼, Gracechurch-st.
Julia Taltal ...... *N*	—	—	1 0	—	0 19 0	250,000	Chili	79¼, Gracechurch-st.
Lagunas .... *N*	⅜ ¾	—	5 0	—	5 0 0	180,000	Tarapaca	3, Gracechurch st.
Lautaro .... *N*	6⅝ 7⅛	6¾	5 0	5/- Jan. 94	5 0 0	110,000	Chili	70, Gracechurch st.
Liverpool .... *N*	10⅜ 11⅛	10⅜	5 0	10/- Feb. '94	5 0 0	22,000	Chili	Liverpool.
Loma .... *G*	1/- 1/3	1/-	1 0	—	1 0 0	300,000	Colombia	5, Copthall-building
London Nit....... *N*	3⅜ 3⅝	2⅜	3 0	3/4¾ Nov. '89	5 0 0	10,000	Chili	9, Gracechurch-st.
LondonNit.(Pref.)	4 4⅜	3⅜	5 0	5/- May, '94	5 0 0	22,000	Chili	9, Gracechurch-st.
Macate	2/6 3/-	2/-	0 2	—	0 2 0	200,000	Peru	11, Old Broad-st, E.C
New Tamarugal *N*	⅞₁₆ ⁹⁄₁₆	⅞₁₆	1 10	2½p.c.July'94	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
Do. 8 % Cum Pref	⅞ 1	¹⁵⁄₁₆	1 10	8 p.c. July '94	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
Do 6 p.c. Debs ...	80 83	79	100 0	6 p.c. July '94	100 0 0	£280,000	Tarapaca	50, Lime-street, E.C
Orita .... *G*	1/- 2/-	1/-	1 0	1/- April '89	1 0 0	30,000	Colombia	10, Blomfield-street.
Ouro Preto ...... *G*	—	—	1 0	—	0 18 6	80,000	Brazil	6, Queen-street-place
Pac. & Jazpampa *N*	4⅛ 4¾	4⅛	5 0	—	5 0 0	72,000	Tarapaca	3, Gracechurch-st.
Panulcillo .... *C*	—	—	2 0	1/- Nov. '89	2 0 0	112,500	Chili	13, Great St. Helens.
Primitiva .... *N*	3⅛ 4	3⅛	5 0	5% Oct. '89	5 0 0	40,000	Chili	Liverpool.
Quebrada......... *C*	5/- 7/-	¼	3 0	5% Mar. '92	3 0 0	241,958	Venezuela ...	38, Nicholas Lane.
Quebrada......... *C*	—	40	Stk.	6% Feb., 94	100 0 0	£400,000	Venezuela ...	38, Nicholas Lane.
Rosario .... *N*	1¾ 5¾	5¼	5 0	3/6 Feb. '94	5 0 0	120,000	Chili	57¼ Old Broad-street.
Rosario (6% Deb.)	103 105	103	100 0	6% Apr. '94	100 0 0	£475,000	Chili	57¼, Old Broad-street.
St. John del Rey *G*	29/- 31/-	25/-	1 0	10% June '92	1 0 0	277,435	Brazil.........	28, Tower-chmbrs, E.C
San Donato ... *N*	2 2⅛	1¾	5 0	—	5 0 0	32,000	Chili	12, King-st., Liverp'l.
San Jorge .... *N*	6¾ 6¾	6¾	5 0	10/- May '94	5 0 0	75,000	Chili	9, Gracechurch-st.
San Pablo .... *N*	4⅛ 4⅜	4⅛	5 0	7½% Apr., '94	5 0 0	32,000	Chili	3, Gracechurch-st.

"THE MINING JOURNAL" SHARE LIST—(Continued).

SOUTH AND CENTRAL AMERICAN MINES—(*Continued*).

Name.	Closing Price, Sept.14,1894	Closing Price, Sept. 7, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Santa Barbara ...G	—	—	0 10	1/3 Dec. '86	0 10 0	80,000	Brazil	Liverpool
Santa Elena ...N	1⅜ 1⅝	1⅜	5 0	5/- Nov. '93	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
Santa Rita ...N	4¼ 4½	4¼	5 0	15% Apr., '94	5 0 0	20,000	Chili	DashwoodHouse,E.C
San Sebastian ...N	2½ 2¾	2½	5 0	1/6 May '94	5 0 0	29,000	Chili	DashwoodHouse,E.C
Segovia ...G	—	—	5 0	—	0 4 0	160,000	Colombia	5, Copthall-buildings
Sucre Pref. ...G	—	—	1 0	10% July '94	0 15 0	840	Colombia	23, St. Swithin's ln.
Sucre Ord. ...G	—	—	1 0	8% July '94	1 0 0	10,000	Colombia	23, St. Swithin's ln.
Tetuan ...G	—	—	1 0	—	0 19 6	200,000	Colombia	5, Copthall-buildings
Tolima "A" ...S	8¼ 8¾	8¾	5 0	10% Aug. '94	5 0 0	14,000	Colombia	18, Finsbury-circus.
Do. "B" ...S	7 7½	7¼	5 0	10% Aug. '94	5 0 0	6,000	Colombia	18, Finsbury-circus.
Vic. & Altamira ...	—	—	0 5	—	0 5 0	200,000	Venezuela	Broad-st. Avenue.
West Indian ...G	—	—	0 5	—	0 5 0	700,000	San Domingo	49, Queen Victoria-st.
Zaruma ...G	—	—	0 5	—	0 5 0	261,422	Ecuador	1, Gt. Winchester-st.

AFRICAN MINES.

Name.	Closing Price, Sept.14,1894	Closing Price, Sept. 7, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Afrikander ... G	1-5/16 1-7/16	1¼	1 0	—	1 0 0	40,000	Transvaal	19, St. Swithin's-lane
Agnes Block ... G	8/- 10/-	10/-	1 0	—	1 0 0	78,507	Transvaal	54, Old Broad-street.
Alexandra Estate G	5/6 6/6	4/6	1 0	—	1 0 0	225,000	Witwatersrd.	Warnford Court, EC‡
Appantoo ... G	—	—	1 0	—	1 0 0	71,000	West Coast	9, New Broad-street.
Aurora ... G	5/- 7/-	5/-	1 0	5% Mar. '93	1 0 0	65,000	Witwatersrd.	8, Old Jewry.‡
AuroraWest,New G	4/- 6/-	4/-	1 0	5% Mar., '93	—	80,000	Witwatersrd.	1, Crosby Square.‡
Balkis Eersteling G	-/9 1/3	-/9	0 10	—	0 9 6	520,000	Transvaal	85, Gracechurch-st.
Balkis Land ...	2/- 2/6	2/-	0 10	—	0 10 0	520,000	Transvaal	85, Gracechurch-st.
Banket ... G	-/9 1/3	-/9	1 0	—	1 0 0	200,000	Witwatersrd.	Johannesburg.
Bantjes Reef ... G	14/- 15/-	13/6	1 0	—	1 0 0	83,000	Witwatersrd.	Warnford-court,†‡
Barrett ... G	3/- 3/6	3/6	0 10	—	0 9 0	207,496	De Kaap	17, Basinghall-street
Bechuanaland Exp.	26/- 27/-	25/-	1 0	—	1 0 0	200,000	Bechuanaland	19, St.Swithin's-lane
Block "B" Lang.	7/6 8/6	7/-	1 0	—	1 0 0	535,000	Witwatersrd.	8, Princes-st., E.C.‡
Booysen Land . G	7/- 9/-	7/-	1 0	—	0 11 0	95,000	Transvaal	8, Princes st., E.C.‡
Do. Pref. ...	--	—	1 0	8% Mar., 94	0 10 0	71,174	Transvaal	4, Tokenhouse-blds.
Brit. S. A. Char. ...	37/- 38/-	36/6	1 0	—	1 0 0	2,000,000	S. Africa	19, St. Swithin's-lane
Buffelsdoorn ... G	27/- 29/-	27/-	1 0	—	1 0 0	250,000	Potchefstroom	8, Old Jewry.
Buluwayo Synd. ...	1 1¼pm	1	1 0	—	1 0 0	12,000	Matabeleland	10, Helen's Place.
Cape Copper ...C	1-5/16 1-7/16	5/16	2 0	1/3 June '94	2 0 0	300,000	Cape Colony	9, Queen-street-place.
Do. 6% Pref.	1-15/16 2-1/16	1-15/16	2 0	1/3 June '94	2 0 0	45,000	Cape Colony	9 Queen-street-place.
Cen. Montrose ... G	1/- 2/-	1/-	1 0	—	0 18 6	69,000	Transvaal	15, George st. Mn.Ho.
Champ d'Or ... G	2⅜ 2¾	2⅜	1 0	—	1 0 0	116,016	Witwatersrd.	8, Old Jewry, E.C.
Champ d'OrDeep G	13/6 14/6	11/-	1 0	—	1 0 0	275,000	Witwatersrd.	Fox st., Johannesbrg
City and Suburb. G	15⅞ 16⅛	15⅛	1 0	25% Mar. '94	1 0 0	75,000	Witwatersrd.	1, Crosby Square.‡
Coetzeestroom ... G	1/- 2/-	1/-	0 5	—	0 5 0	140,000	De Kaap	105, Leadenhall-street
Con. Bultfontein D	26/6 27/6	26/-	1 0	5% Nov. '89	1 0 0	721,500	Griqualand W	62, Lombard-st.
Con. Deep Levels G	2 2¼	2	1 0	4/- June '94.	1 0 0	187,250	Transvaal	30, St. Swithin's-lane.
Con. G. Fields S A.	2⅜ 2½	2¼	1 0	10% Nov. '93	1 0 0	1,250,000	S. Africa	8, Old Jewry.
Do. 5½% Deben.	100 101	99½	5 0	5½ July, '94	5 0 0	6 0,000	S. Africa	8, Old Jewry.
Crown Reef ... G	8⅛ 8⅝	8⅜	1 0	25% May '94	1 0 0	120,000	Witwatersrd.	23, Austin Friars.‡
De Beers Consol. D	16⅝ 16⅞	16	5 0	12/6 June '94	5 0 0	789,791	Transvaal	62, Lombard-street.
Do. 5½% 1st Deb.	103 104	103	100 0	5½% Feb. '94	5 0 0	£1,875000	Transvaal	62, Lombard-street.
Do. 5½% Bul. Ob.	104 105	103½	100 0	5½% Apr. '94	5 0 0	£720,100	Transvaal	62, Lombard-street.
Durban Roodept. G	6½ 6⅝	6	1 0	3/- Sept. '94	1 0 0	£125,000	Witwatersrd.	28, Leadenhall-bldgs
East Rand ... G	13/6 14/6	13/6	1 0	—	1 0 0	570,000	Witwatersrd.	170, Winchester-ho.
Evelyn ... G	—	—	1 0	10% Jan. '89	1 0 0	66,000	Witwatersrd.	28, Old Jewry, E.C
Exploration ... 1	1 1⅛	17/6 pm	1 0	1/- Dec. '92	0 4 0	140,000	S. Africa	30, S. Swithin's-ln.‡
Exploring Co. ...	4⅞ 5⅛	4¾	1 0	25/- Feb. '94	1 0 0	69,350	S. Africa	19, S. Swithin's-ln.
Ferreira ... G	8⅛ 8¾	8½	1 0	100% June '94	1 0 0	45,000	Witwatersrd.	29, HolbornViaduct.‡
Forbes Reef (Nw) G	3/- 5/-	3/-	1 0	—	0 19 0	105,000	De Kaap	45-6, Leadenhall-st.
Geldenhuis Deep G	4 4¼	4⅛	1 0	—	1 0 0	265,000	Transvaal	30, St. Swithin's-lane.
Geldenhuis Est. G	5⅛ 5⅜	5⅛	1 0	20% Mar. '94	1 0 0	187,500	Witwatersrd.	29 & 30, Hol. Viaduct.
Do. Main Reef	13/6 14/6	13/6	1 0	—	1 0 0	150,000	Witwatersrd.	Warnford-court, E.C.‡
George and May G	17/6 20/-	17/6	1 0	—	—	112,750	Witwatersrd.	Warnford Court, E.C
George Goch ... G	—	—	1 0	—	1 0 0	100,000	Witwatersrd.	Johannesburg.
Glencairn ... G	34/- 35/-	31/6	1 0	5 p c Aug. 94	1 0 0	200,000	Witwatersrd.	2, Drapers-gardens.
Gold Estates T. ... G	3/6 4/6	3/6	1 0	15% Dec. '89	0 10 0	130,000	Transvaal	46, Queen Victoria-st
Gld. Fis. Deep ... G	13/16 ⅞	13/16	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G. F. of Mashonld.	15/9 16/3	12/6	1 0	—	1 0 0	200,000	Mashonaland	19, St. Swithin's-ln.
G.F. Tierra d'Fuego	2/1½ 2/4½	2/1½	0 4	—	0 4 0	400,000	Mozambique	2, Tokenhouse Bldgs.
Grahamstown .. G	9/6 10/6	8/6	1 0	—	1 0 0	150,000	Witwatersrd.	14, Throgmorton-st.
Graskop ... G	1/9 2/3	1/9	0 5	2½% Mar. '92.	0 5 0	500,000	Lydenburg	85, Gracechurch-st.
Griqualand W. ... D	6¾ 7	6¾	10 0	4% March '94	10 0 0	105,700	Transvaal	62, Lombard-street
Henry Nourse ... G	3-11/16 3-13/16	3-1/16	1 0	—	1 0 0	100,000	De Kaap	Warnford-court.
Heriot (New) ... G	5⅛ 5¾	5¼	1 0	—	1 0 0	195,000	Witwatersrd.	1, Crosby Square.‡
Joe's Luck ... G	5/- 6/-	3/6	1 0	—	1 0 0	57,404	De Kaap	11, Queen Vic.-st.
Johannesburg Pnr	3⅝ 3⅞	3⅝	1 0	12½% Nov., '93	1 0 0	21,000	Witwatersrd.	Johannesburg.
Jubilee ... G	5⅜ 5⅝	5¼	1 0	30% Aug. '94	1 0 0	30,000	Witwatersrd.	8, Old Jewry.†
Jumpers ... G	4⅝ 4⅞	4½	1 0	30% June '94	1 0 0	100,000	Witwatersrd.	29, HolbornViaduct‡†
Kimberley ... D	1/16 3/16 pm	1/16	1 0	—	0 10 0	98,672	Kimberley	19, Finsbury-circus.
Kimberley Rdpt. ...	10/- 11/-	10/-	1 0	—	1 0 0	125,000	Kimberley	2, Drapers-gardens.
Kleinfontein (N) G	1-15/16 2-1/16	1-11/16	1 0	—	1 0 0	150,000	Witwatersrd.	8, Old Jewry.
Klerksdorp ... G	1/- 1/6	1/-	1 0	—	1 0 0	150,007	Transvaal	110, Cannon-street.
Koffyfontein ... D	—	15/-	1 0	—	0 5 0	50,000	Jacobsdaal	4, Bishopsgate street

AFRICAN MINES—(*Continued*).

Name.	Closing Price, Sept.14,1894	Closing Price, Sept.7, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Langlaagte Est. G	4⅜ 4⅝	4¼	3 0	12½% June '94	1 0 0	467,000	Witwatersrd.	59, HolbornViaduct.‡
Do. Royal	3¼ 3⅜	3⅛	1 0	5% Sept. '93	1 0 0	100,000	Witwatersrd.	2, Drapers-gardens.‡
Lisbon-Berlyn ... G	2/3 2/9	2/3	2/6	—	0 2 6	883,233	Lydenburg	110, Cannon-street.
London & S. A. Ex.	10¾ 11¼	10¾	0 10	3/- June '94	0 10 0	100,000	S. Africa	19, Finsbury-circus.
Luipaards Vlei Est.	8/6 9/-	8/6	1 0	6% Mar. '90	1 0 0	319,093	Witwatersrd.	Warnford-court.‡
Do. do. do.	⅛ ¼	⅛	1 0	—	0 10 0	25,000	Witwatersrd.	8, Old Jewry.
Main Reef (New) G	8/- 10/-	8/-	1 0	—	0 10 0	300,000	Witwatersrd.	8, Old Jewry.
May Con. (New) G	1-1/16 1-3/16	9/-	1 0	—	1 0 0	430,000	Witwatersrd.	4, Lothbury.‡
May Deep Level G	10/- 11/-	10/-	1 0	—	1 0 0	146,000	Witwatersrd.	33, Cornhill, E.C.
Mashon. Agency ...	15/- 17/6	9/16	1 0	—	0 10 0	100,000	Mashonaland	8, Old Jewry, E.C.
Mashon. Central ...	—	—	1 0	—	1 0 0	200,000	Mashonaland	8, Old Jewry, E.C.
Matabeleland ...	—	—	12/6	—	0 12 6	79,889	Matabeleland	73, Basinghall St, E.C.
Metropolitan (N) G	17/6 20/3	17/6	1 0	—	1 0 0	75,000	Witwatersrd.	1, Crosby Square ‡
Meyer & Charl. ... G	5⅝ 6⅛	6⅛	1 0	25% June '94	1 0 0	71,687	Witwatersrd.	Warnford-court.‡
Mines Trust ...	⅝ ¾	⅝	1 0	3% May '94	1 0 0	82,774	So. Africa	130, Winchester Ho.
Modderfontein .. G	1⅝ 1⅞	1⅝	1 0	—	1 0 0	200,000	Witwatersrd.	Warnford-court ‡
Montrose ... G	⅜ ⅝	—	1 0	3/- Feb. '90	1 0 0	70,000	De Kaap	65, New Broad-street
Moodies G.&E. ... G	7/6 8/6	8/-	1 0	-/4 May '90	1 0 0	240,000	De Kaap	8, Old Jewry ‡
Mozambique ...	17/- 18/-	12/6	1 0	—	1 0 0	400,000	S. E. Africa	Broad-street House.
Namaqua ... C	18/9 21/3	18/9	2 0	2/6 July '91	2 0 0	194,351	Namaqualand.	34, Leadenhall-blds.
New Black Reef ...	—	—	1 0	—	1 0 0	78,000	Witwatersrd.	9, King William st.‡
New Chimes ... G	2-1/16 2-3/16	2	1 0	10% June, '94	1 0 0	70,000	Witwatersrd.	8, Old Jewry, E.C.
New Clewer Estate	⅞ 1	⅞	1 0	—	1 0 0	100,000	Lydenburg	29-30, Holborn-viadt.
New Crœsus ... G	1¼ 1⅜	1¼	1 0	5% Aug. '92	1 0 0	195,000	Langlaagte	4, Bishopsgt.-st., Wt.
New Edwin Bray	—	—	7 0	—	7 0 0	65,000	De Kaap	23, College Hill.
New Gordon ... D	2/- 3/-	2/-	1 0	5% Dec. '89	1 0 0	560,250	Griqualand	110, Cannon-street.
New Jagersf. ... D	13⅛ 13⅜	13⅛	10 0	5% Mar., '94	10 0 0	100,000	Transvaal	5, Copthall-buildings
New LouisD'Or .. G	6/9 7/3	6/3	1 0	—	1 0 0	100,000	Witwatersrd.	53, New Broad-street
New Primrose ... G	4⅜ 4⅝	4⅛	1 0	20% July '94	1 0 0	230,000	Witwatersrd.	2, Draper's-gardens.
New Rietfontein G	2⅛ 2¼	1¼	1 0	—	1 0 0	160,000	Witwatersrd	Warnford-ct., E.C.
New S. Augustine D	-/9 1/-	-/6	1 0	—	0 19 0	234,583	Griqualand W	30-1, St. Swithin's-ln
New Spes Bona ...	6/- 8/-	6/-	1 0	—	1 0 0	113,801	Witwatersrd.	24, N. John-st., L'pl.
N. Ophir Concess.	-/6 1/-	-/9	1 0	—	0 16 6	111,857	E. CoastAfrica	31, Lombard-street.
New Virginia ... G	3/9 4/3	3/6	0 10	—	0 10 0	48,335	Transvaal	26, Budge-row, E.C.
Nigel ... G	3⅛ 3⅜	3-1/16	1 0	15% June '94	1 0 0	160,000	Witwatersrd.	1, Crosby-square.
Nooitgedacht E. G	—	—	1 0	—	1 0 0	160,000	Lydenburg	8, Old Jewry.
Oceana ...	1-13/16 1-15/16	1-15/16	1 0	25/- Nov. '89	1 0 0	150,000	Transvaal	4, Sun Court, E.C.
Oceana Develpmnt	½ dis par	½ dispar	1 0	—	0 5 0	50,000	Transvaal	4 Sun Court, E.C.
Orange F.S.E. ... D	4 4½	4	1 0	12½ Mar. '94	1 0 0	284,000	OrangeF.State	10, Moorgate-street.
Orion ... G	—	—	1 0	10% Aug. '94	1 0 0	30,000	Witwatersrd.	10, Basinghall-street
Otto's Kopje ... D	2/9 3/3	2/6	1 0	—	0 19 3	437,888	Kimberley	110, Cannon-st., E.C.
Paarl Central ... G	20/- 22/-	19/-	1 0	—	1 0 0	138,750	Transvaal	29-30, Hol. Via., E.C.
Paarl Ophir ... G	—	—	1 0	10p.c. Aug. '94	1 0 0	12,000	Tweffontein	Cape Town
Pardy's Mozambq.	—	—	0 10	10p.c. Apr. 94	0 10 0	13,000	S. E. Africa	Broad St. Avenue.
Piggs Peak, New G	3/- 4/-	2/6	1	—	0 16 6	230,326	Swaziland	6, Queen-street-place
Potchefstroom ... G	2/- 3/-	2/6	1 0	—	1 0 0	161,000	Potchefstroom	19, Bury-st., E.C.
Princess Estate G	18/9 21/3	18/9	1 0	—	1 0 0	72,046	Witwatersrd.	33, Cornhill, E.C.
Randfontein ... G	15/6 16/6	15/6	1 0	—	1 0 0	1,916,500	Witwatersrd.	59, HolbornViaduct.‡
Rand Mines ... G	11⅜ 11⅝	9¾	1 0	—	1 0 0	332,798	Witwatersrd.	29-30, Holborn Via.
Read's Drift ... D	10/- 12/-	7/6	1 0	—	—	50,000	Transvaal	19, Finsbury circus.
Robinson ... G	6¾ 7	6¾	5 0	5% Aug. '94	5 0 0	543,750	Transvaal	55, HolbornViaduct‡†
Roodepoort Un. G	2-15/16 3-1/16	2-15/16	1 0	10p.c.Aug. '94	1 0 0	100,000	Witwatersrd.	Warnford-court.‡
Salisbury New ... G	2¾ 2⅞	2⅝	0 10	—	0 10 0	93,000	Witwatersrd.	1, Crosby-square.‡
Sheba ... G	28/6 29/6	28/-	1 0	1/- July, '94	1 0 0	614,450	Lydenburg	85, Gracechurch-st.
Silati ... G	2/6 3/-	2/9	1 0	—	0 17 6	625,000	Zoutpansberg.	4, Sun Court, E.C.
Simmer & Jack ... G	7⅞ 8⅛	7⅝	1 0	10% May '94	1 0 0	85,000	Witwatersrd.	33, Cornhill.
Do New ...	—	—	6 0	—	6 0 0	45,000	Witwatersrd.	33, Cornhill.
S.A. Gold Trust ...	1⅜ 1½	1-5/16	1 0	10% April '93	1 0 0	220,000	South Africa	8, Old Jewry.
S.Simmer & Jack G	1-7/16 1-9/16	1-7/16	1 0	—	1 0 0	120,000	Witwatersrd	31, Lombard-st., E.C.
Spitzkop (New) G	12/- 13/-	11/6	1 0	—	0 19 6	99,070	Lydenburg	15, Bishopsgt.-st. Wt.
Stanhope ... G	1⅝ 1⅞	2⅛	1 0	50% July. '94	—	34,000	Witwatersrd.	1, Crosby Square ‡
Sutherland R. ... G	5/9 6/3	4/9	1 0	—	0 18 6	220,000	Zoutpansberg.	3, Budge-row, E.C.
Teutonia ... G	—	—	1 0	—	1 0 0	96,000	Witwatersrd.	8, Old Jewry
Thistle Reef ... G	-/6 1/-	-/6	0 5	—	0 4 0	150,000	Barberton	15, Angel-court, E.C.
Trans. Coal Trust ...	13/6 14/6	13/6	1 0	2½% May '94	1 0 0	439,985	Witwatersrd.	Broad-st. House, E.C
Trans. Est. & Dev.	9/6 10/6	9/6	1 0	—	1 0 0	285,700	Transvaal	76, Old Broad-st. E.C.
Trans. Gold ... G	2⅜ 2½	2⅜	1 0	1/- June '94	1 0 0	250,000	Transvaal	Suffolk House, E.C.
Trans. Land ...	6/- 7/-	6/-	1 0	—	1 0 0	79,915	Transvaal	Suffolk House, E.C.
Trans. Land ...	2/- 3/-	2/6	1 0	—	0 15 0	169,999	Transvaal	33, Cornhill.
Treasury ... G	—	—	1 0	7½% May '94	1 0 0	26,000	Witwatersrd.	Johannesburg.
Turffontein Est. ...	—	—	1 0	2½ Jan. '94	1 0 0	40,007	So. Africa	130, Winchester Ho.
Un. Ivy Reef ... G	12/6 15/-	13/9	1 0	2½ Jan. '94	1 0 0	45,000	Transvaal	110, Cannon-street
Un. Langlaagte G	10/- 12/6	10/-	1 0	—	1 0 0	100,000	Witwatersrd.	23, St. Swithin's-ln.
Van Ryn ... G	1-9/16 1-11/16	1-1/16	1 0	—	1 0 0	90,810	Witwatersrd.	1, Crosby-square.‡
Victory Hill ... G	—	—	1 0	—	1 0 0	108,000	De Kaap	Portland House, E.C.
Village Main Reef	4⅞ 5⅛	4	1 0	—	1 0 0	132,000	Witwatersrd.	8, Old Jewry.
Wassau ... G	—	—	1 0	—	1 0 0	100,000	Gold Coast	147, Cannon-street.
Wemmer ... G	5 5¼	5	1 0	10% Nov. '91	1 0 0	55,000	Witwatersrd.	19, Bury-street.‡†
Witwatersrand G	25/- 26/-	24/6	1 0	—	1 0 0	250,000	Witwatersrd.	19, Bury-st., E.C.
Wolhuter ... G	3 3⅛	3	1 0	—	1 0 0	120,000	Witwatersrd.	Warnford-court.†
Wolverand ... G	⅜ ⅝	⅜	1 0	2/- Apr., '94	1 0 0	18,750	Transvaal	5, Copthall-buildings
Wolverand ... G	—	—	1 0	—	0 18 0	39,021	Transvaal	5, Copthall buildings
Worcester ... G	3¼ 3⅜	3⅛	1 0	20% Aug. '94‡	1 0 0	90,727	Witwatersrd.	8, Old Jewry.‡
Zambesia Explora.	2¾ 3	2⅝	1 0	—	1 0 0	45,000	Transvaal	13, George-st., E.C.

COAL, IRON, AND MISCELLANEOUS COMPANIES.

Name.	Closing Price, Sept.14,1894	Closing Price, Sept. 7, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d			
African Gold Recy	1-7/16 1-9/16	1-7/16	1 0	1/- Oct. 93	1 0 0	175,000		23, College Hill, EC
Albion Steam ...	11⅜ 11⅝	11⅜	10 0	10 p c Feb. 94	10 0 0	22,000	Pontypridd	6, Crosby-sq., E.C.
Aluminium, "A"	1 1¼	1	1 0	2/6 Sept. 89	1 0 0	60,000		13, Abchurch Lane
Andrew Knowles ...	11¾ 12¼	11¼	50 0	14s Mar. 94	35 0 0	24,400	Pendlebury	Pendlebury, nr Man.
Do do ...	27 31	27	50 0	7/6 July 94	50 0 0	600	Pendlebury	Pendlebury, nr Man.
Do Mort. Debts.	101 103	101	100 0	5 p c July 94	100 0 0	£125,000	Pendlebury	Pendlebury, nr Man.
Arniston. ...	25¾	25¾	10 0	25s May 94	8 0 0	6,500	Arniston	10, S. Andw-sq Edin.
Ashbury Carr. Co.	19 22	19	50 0	28/- Oct. 92	50 0 0	3,000		Openshaw, Man.
Do do	1⅛ 2¼	1⅛	11 0	3/3 Oct. 92	6 10 0	9,822		Openshaw, Man.
Aus. Gold Recovry	¼ ¾	¼	1 0	...	1 0 0	160,000		23, College Hill, EC
Barrow Hem. Ord.	1¾ 2¼	1¾	7 10	...	7 10 0	150,000	Barrow-in-Fur	10, S. Swithin's-lane
Do 6 p.c. Pref. ...	4¾ 5¼	4¾	7 10	...	7 10 0	50,000	Barrow-in-Fur	10, S. Swithin's-lane
Bolckow Vaughan	12¾ 13¼	12	20 0	10s Mar. 94	20 0 0	81,488	York&Durhm.	16, Philpot-lane.
Do do	6¾ 7	6¾	20 0	6s Mar. 94	12 0 0	93,045	York&Durhm	16, Philpot-lane.
Do 5 p.c. Pref.	21¾	21¼ xd	20 0	5 p c Feb. 94	20 0 0	23,604	York&Durhm.	16, Philpot-lane.
Cairntable ...	8 8½	8	10 0	10 p c Dec. 93	10 0 0	6,038	Scotland	100, Welling-st, Glas
Calderbank Steel &c	2 2½	2	10 0	2½ Oct. 91	10 0 0	15,000	Near Glasgow	63, Vincent-st., Glas
Do 6 p c Pref. ...	7¼ 7⅝	7¼	10 0	6 p c Oct. 91	10 0 0	10,000	Near Glasgow	63, Vincent st., Glas
Cassel Gold Extng	14/-	15/-	1 0	7½% Dec. 93	1 0 0	168,000		108A, Hope st., Glas
Do 3rd Issue ...	7/9	7/9	1 0	...	0 15 0	30,000		108A, Hope st., Glas
Consett Iron ...	20¾ 21¼	20¾	10 0	9s July, 94	7 10 0	100,000	Durham	Consett, Co. Durham
Do 6 p.c. Pref.	10 10½	10	5 0	4s July, 94	5 0 0	100,000	Durham	Consett, Co. Durham
Cowdenbeath ...	15	14	10 0	15 p c Aug. 94	8 10 0	15,000	Fife	Cowdenbeath, Fife.
Do 5 p.c. Pref.	10⅞	10⅝	10 0	5 p c Feb 94	10 0 0	10,000	Fife	Cowdenbeath, Fife
D. Davis and Sons	12¾ 13¼	12¾	10 0	10 p c Aug. 94	10 0 0	45,000	Rhondda	138, Leadenhall-st.‡
Ebbw Vale ...	8¾ 9¼	8¾	23 0	10s June 94	20 0 0	69,754	South Wales	122, Cannon-street‡
Do do ...	10¾ 11¼	10	23 0	10s June 94	23 0 0	4,721	South Wales	122, Cannon street‡
Fife Coal ...	29⅜ 29⅞	29⅜	10 0	3 p c Aug. 94	9 0 0	12,000	Fife	Leven, Fifeshire.
Fraser & Chalmers	1⅛ 1⅜	1	5 0	4/- Oct. 91	5 0 0	105,000		43, Threadneedle st.
Gen. Mining Assoc.	7 7¼	7	8 0	15/- Apr. 94	8 0 0	27,469	Nova Scotia	Blomfield House, EC
Great Western (A)	8⅛ 8⅝	8⅛	5 0	6 p c Mar. 94	5 0 0	10,000	Pontypridd	35, W. Bute-st., Crdff
Do do (B)	4⅛ 5	4⅛	5 0	10 p c June 94	5 0 0	50,000	Pontypridd	35, W. Bute-st., Crdff
Great Wyrley ...	120	...	100 0	...	100 0 0	600	Great Wyrley	Gt. Wyrley, Walsall
Hamstead ...	21¼ 21¾	21⅛	20 0	16/- Aug. 94	20 0 0	5,000	Great Barr	Gt. Barr, nr. Birm.
Do 7½ p c Pref.	32¾	32¾	20 0	15/- Aug. 94	20 0 0	5,000	Great Barr	Gt. Barr, nr. Birm.
Henry Briggs (A)	13¼ 13¾	[illegible]	15 0	18/9 Aug. 94	12 10 0	12,965	Normanton	Whitwood, Yorks.
Do do (B)	9⅝ 10	9¾	15 0	12/9 Aug. 94	6 10 0	11,405	Normanton	Whitwood, Yorks.
International ...	3¼ 3¾	3¼	5 0	...	5 0 0	13,820	Glamorganshr	59, Mt. Stut-sq., Crdff
J. Brown & Co. ...	14⅛ 15¼	14⅛	20 0	7/6 July 94	15 0 0	58,000	Yorkshire	12, Fncheh-st., EC‡
Do 5 p c Pref. ...	11¾ 11⅛	11	10 0	5 p c June, 94	10 0 0	18,000	Yorkshire	12, Fncheh st., EC‡
John Watson ...	12¼ 12⅝	12¼	10 0	12s May, 94	8 10 0	13,333	Lanark&Stirlg	23, Vincent-st., Glas
Do 6 p.c. Pref.	12⅝	12⅝	10 0	...	10 0 0	6,666	Lanark&Stirlg	123, Vincent-st., Glas
Lofthouse ...	6¾ 7	6¾	4 0	...	3 0 0	18,658	Lofthouse	Lofthouse, Yorks
Lothian Pref. ...	7	7	10 0	7½ p c May 94	10 0 0	12,500	Scotland	Newbattle Col., Dalk.
Mang. Bns. & Brass	...	...	10 0	8/- Aug. 94	6 0 0	11,951		73, Lombard st., EC
Merry Cunningh.	...	...	10 0	...	10 0 0	12,500	Lanark&Renw	127, Vincent-st., Glas
Do 7 p.c. Pref.	11	10¾	10 0	7 p c May, 94	10 0 0	£150,000	Lanark&Renw	127, Vincent-st., Glas
Do 5 p.c. Debs.	105	105	100 0	5 p c May, 94	10 0 0	11,548	Lanark&Renw	127, Vincent-st., Glas
Morgan Cruc. Pref	12¾ 13¼	12¾	10 0	6/- Mar. 94	10 0 0	20,000		Battersea, S.W.
Nerbudda Coal&In	⅛ ¼	⅛	3 0	...	2 11 0	49,639	India	213, Gresham House

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			£ s.		£ s. d.			
Newport Abercarn	—	12⅜	10 0	3 p.c., July, 94	10 0 0	15,000	South Wales	12, Mary Axe
Do Preference	8¾ 9	8½	10 0	6 p.c., July, 94	10 0 0	7,500	South Wales	12, Mary Axe
N. Sharlston Pref.	12⅛ 13⅛	12½	20 0	10s. July, 94	20 0 0	7,500	Yorkshire	110, Cannon-st., E.C
Newton Chambers.	19 20	...	20 0	...	20 0 0	7,975	Near Sheffield	Thorncliff Ironworks
Do 6 p.c. Pref.	20¾ 21¼	...	20 0	...	20 0 0	7,348	Near Sheffield	Thorncliff Ironworks
New Vancour. *Coal*	⅜ ⅝	⅜	1 0	3 p c May 94	1 0 0	205,000	Brit. Columbia	12, Old Jewry Chm.
Niddrie & Benhar	40/- 40/3	39/9	1 5	2/6 June, 94	1 5 0	86,000	Near Edinbrg.	4, York-b dgs., Edin.
North's Navigation	2⅛ 3	2⅛	5 0	5s Mar. 94	5 0 0	80,000	Glamorgansh.	6, Gracechurch st.
North's 10 p c Pref	6 6⅛	6	5 0	5s Mar. 94	5 0 0	10,000	Glamorgansh.	6, Gracechurch-st.
Parkgate Iron ...	34 36	34	100 0	30s June, 94	75 0 0	3,000	Yorkshire	Park Gate, Yorks
Pearson Knowles A	48 50	48	50 0	20/- Sept. 93	50 0 0	4,354	Lancashire	110, Cannon-st.‡
Do do B	16 20	16	50 0	10/- Sept. 92	50 0 0	12,230	Lancashire	110, Cannon-st.‡
Penrikyber Ord. ...	5 5½ xd	5	10 0	10 p c Mar. 94	10 0 0	15,000	Glamorgansh.	Penrikyber, Glamsh.
Do 5 to 7½ p.c.P	7¼ 8 xd	7⅛	10 0	5 p c Mar. 94	10 0 0	20,000	Glamorgansh.	Penrikyber, Glamsh.
Rhymney Iron ...	1¼ 1⅝	1⅜	5 0	3s July, 94	5 0 0	131,410	South Wales	26, Martin's-lane, EC
Do New ...	¾ 1	⅝	5 0	2/1 1-5 July 94	4 5 0	68,590	South Wales	26, Martin's-lane, EC
Do 5% Mort D	92 95	92	100 0	5 p c July 94	100 0 0	£175,120	South Wales	26, Martin's-lane, EC
Rich. Evans & Co. A	6¼ 6¾	6¼	10 0	5s Mar. 94	10 0 0	43,502	Lancs	Haydock, Lancs.
Do do B	3¼ 3¾	3¼	10 0	2½ p c Mar. 94	5 0 0	15,979	Cheshr&Wales	Haydock, Lancs.
Rosewell Gas Coal	5	5	10 0	...	10 0 0	800	Fifeshire	21, S. Andw-sq., Edin
Do do	8	8	10 0	...	9 0 0	1,700	Fifeshire	21, S. Andw sq., Edin
Salt Union ...	4¾ 5	4⅝	10 0	6/- Feb. 94	10 0 0	200,000		Salters Hall Ct., EC
Do 7 p c Pref.	10¼ 10¾	10¼	10 0	7/- Feb. 94	10 0 0	100,000		Salters Hall Ct., EC
Do 4½ D Sk Red	110 112	109	Stk.	4½ p c June 94	100 0 0	£1,000000		Salters Hall Ct., EC
Sandwell Park ...	18¾ 19	18⅝	10 0	5 p.c. Aug. 94	10 0 0	15,625	Staffordshire	West Bromwich
Sheepbridge ... A	18¼ 18¾	16⅞	25 0	12/6 Sept. 94	25 0 0	19,933	Chesterfield	Chesterfield.
Do ... B	7¼ 7¾	6¾	10 0	5s Sept. 94	10 0 0	4,970	Chesterfield	Chesterfield.
Do 5% Min ... C	26⅛ 27	26⅛	25 0	12/6 July 94	25 0 0	4,491	Chesterfield	Chesterfield.
Shelton 1st 5% Deb.	85 90	85	100 0	5 p c July 94	100 0 0	£91 80	Staffordshire	122, Cannon-st., EC
Shotts Iron ...	20	20	Stk.	...	100 0 0	£299,210	Scotland	130, George st., Edin
South Hetton Coal	129 130	128	Stk.	10 p c Aug. 94	100 0 0	£100,000	Durham	49, John st., Sundld.
S. Wales Colliery A	9⅜ 9⅝	9⅜	17 0	4 p c Aug. 94	17 0 0	8,000	Monmouthsh.	4, Sun ct., Cornhill
Do 10% B	4 4½	4	3 0	10 p c Aug. 94	3 0 0	8,000	Monmouthsh.	4, Sun ct., Cornhill
Do 10% New B	2 2½	2	3 0	...	1 10 0	5,624	Monmouthsh.	4, Sun ct., Cornhill
Staveley C. & I. A	80 81	80	100 0	£2 Sept. 94	60 0 0	6,000	Derbyshire	61, King Wm. st.‡
Do do B	12⅞ 13⅛	12⅞	100 0	6/8 Sept. 94	10 0 0	3,100	Derbyshire	61, King Wm. st.
Do do C	81⅛ 82⅛	81⅛	60 0	£2 Sept. 94	60 0 0	6,000	Derbyshire	61, King Wm. st.
Do do D	13¼ 13¾	13⅛	10 0	6/8 Sept. 94	10 0 0	3,100	Derbyshire	61, King Wm. st.
Stewart & Clydesdle	8	8¾	10 0	2/6 Aug. 94	10 0 0	45,000		41, Oswald st., Glas.
Do 6 p c Cm Prf	12⅛	12	10 0	...	10 0 0	25,000		41, Oswald st., Glas.
Tredegar Iron ... A	5¾ 6	5¾	50 0	10/10 Aug. 92	38 0 0	20,000	Monmouthsh.	28, Queen st., E.C
Do do B	8⅛ 9⅛	8⅛	25 0	7/6 Aug. 92	25 0 0	10,000	Monmouthsh.	28, Queen st., E.C
United Alkali ...	4¼ 4¾	4¼	10 0	4/- March 94	10 0 0	289,343		Exchange bldgs, Lpl
Do 7 p c Cm Prf	10 10½	9¾	10 0	7/- Aug. 94	10 0 0	282,524		Exchange bldgs, Lpl
Do 5 pc M D Red	107 110	107	Stk.	5 p c June 94	100 0 0	£2,500000		Exchange bldgs, Lpl
United Asbestos A	2¾ 2⅞	2¾	5 0	2/6 Mar. 94	5 0 0	10,000		Billiter st., EC
Do Def. B	⅛ ⅜	⅛	5 0	...	5 0 0	10,000		Billiter st., EC
Wigan Coal & Iron	4⅛ 4⅜	4⅛	10 0	3/- Aug. 94	7 10 0	153,350	Lancashire	6, Strand, WC
Do do	7 7⅛	7	10 0	4/- Aug. 94	10 0 0	65,960	Lancashire	6, Strand, WC
Wilson & Clyde ...	11	11¾	3 0	7/6 Mar. 94	3 0 0	40,000	Hamilton	157, Vincent st., Glas
Do 7% 1st C. Pref.	14	14	10 0	7s Mar. 94	10 0 0	1,791	Hamilton	157, Vincent st., Glas
Do 7% 1st C. Pref.	8⅛	7	10 0	3/6 Mar. 94	5 0 0	2,209	Hamilton	157, Vincent st., Glas
Do 7 p c 2nd C. Pref.	8⅛	7	10 0	3/6 Mar. 94	5 0 0	1,800	Hamilton	157, Vincent st., Glas

MINING NOTES.

HOME, COLONIAL, AND FOREIGN.

TELEGRAPHIC advices received from Johannesburg by the Union Steamship Company (Limited) state that the gold crushings on the Witwatersrandt fields for the month of August were 174,977 ounces. One or more important contributors to the output has not been in full work owing to mining necessities. The following table, taken from the circular issued by the Mining Department of the South African Trust and Finance Company (Limited), gives the crushings to date.

	1889	1890	1891	1892	1893	1894
	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.
January...	25,505 12	35,006 15	53,205 8	84,560 8	108,374 0	149,814 0
February..	22,456 18	36,887 5	50,079 2	86,649 8	93,252 0	151,870 0
March.....	27,919 0	37,780 2	52,949 1	93,244 11	111,474 0	165,372 0
April	27,028 16	38,696 19	55,371 16	95,562 6	122,053 0	168,745 0
May.....	35,028 7	38,836 5½	54,673 1	99,436 6	116,911 0	169,773 0
June	30,877 13	37,419 10	56,861 1	103,252 3	122,507 0	168,162 0
July.....	31,091 2	39,456 14	54,924 10	110,279 1	126,169 0	167,953 7
August ...	30,519 14	42,263 11	59,070 4	102,322 3	136,069 0	174,977 0
September	34,143 10	45,485 19	65,801 15½	107,851 13	129,585 0	—
October ...	32,214 6	45,248 17	72,793 8	112,167 8	138,599 0	—
November	33,721 16	46,782 18	73,393 15	106,794 15	138,640 0	—
December	39,050 11	50,352 5	80,312 11	117,748 17	146,357 0	—
	369,557 5	494,817 0½	729,237 12½	1,210,868 1	1,473,473 0	1,316,666 0

The amount of gold produced in the year 1887 was 23,145 ounces 8 dwts. Complete monthly totals were not recorded in that year. This is the largest monthly output yet recorded exceeding that of May 1894, the previous largest, by 5204 ounces.

TAKING the returns for the month just ended, given below, it is satisfactory to note that, as compared with the corresponding month of last year, there are increases all round, says the *Gympie Miner*. More stone has been crushed, more gold obtained, the average yield per ton is greater, and although July, 1893, was a good month for dividends, July of this year tops it to the extent of no less than £7668. The calls for the month when placed against the exceptionally small amount of money demanded in the corresponding month of last year, at the first glance, appear to be rather heavy, but considering the impetus of late given to mining by the exceedingly rich crushings obtained from the Phœnix Company's South Smithfield workings, the North Smithfield, and the Phœnix Golden Pile, can by no means be considered as extraordinary. The knowledge obtained from the operations carried on in the mines mentioned has led to a number of new claims being taken up, and necessarily additional expense has had to be incurred, hence the increase in this respect. But notwithstanding the outlay involved in forming fresh companies and opening up new ground, we still find that the dividends for the period under notice exceed the calls by the very substantial sum of £16,940—which may be taken as a good indication that gold mining on this field is in a prosperous condition. During the month the No. 1 North Smithfield has come very much to the front, and the same may be said of the Columbia Smithfield, the No. 1 North Great New Zealand, the Great Monkland, the No. 3 North Phœnix, No. 1 North Phœnix, and several other mines, including the No. 1 North Glanmire and the No. 1 South Phœnix. On the whole, the outlook just now in respect of the recognised productive mines is exceptionally good, and with regard to the mines lately opened or for some time past have not figured on the Dividend List, the prospect is such as to justify confidence as to future results. The following show in round numbers the monthly returns for 1894:—

Months.	Crushings. Tons.	Yields. Ozs.	Calls. £.	Dividends. £.
January	3,747 ...	3,581 ...	6,123 ...	4,333
February	6,511 ...	7,147 ...	7,552 ...	13,300
March	7,659 ...	10,690 ...	6,844 ...	22,450
April	7,069 ...	7,947 ...	6,752 ...	16,650
May	7,651 ...	14,894 ...	— ...	32,833
June	7,599 ...	10,002 ...	9,106 ...	22,558
July	6,770 ...	10,559 ...	7,135 ...	24,075
Total.....	47,006 ...	64,820 ...	50,866 ...	136,199

THE returns for the half-year show a marked decrease on the corresponding period of last year, but are, nevertheless, highly satisfactory when the great disadvantages the gold field has been under are taken into consideration, says the Croydon *Mining News*. During the first three months of the year the heavy rainfall resulted in the flooding of many mines, the shareholders in which, having little capital at command, were, as a consequence, compelled to seek exemption. On resuming operations the work of bailing and putting the mines in proper order entailed considerable delay and expense. The want of funds has been another big drawback, the shareholders in many of the frontage claims being unable to continue the work of exploration, and those in nearly all the extended block shafts on the main line of reef having to cease operations altogether. There is very little outside capital invested in Croydon, and the development of its mines, its yield, and present satisfactory position as a gold-producing centre are entirely due to the enterprise, perseverance, and pluck of its miners and townsmen. It is quite impossible, however, to test the deep ground without the assistance of outside capital, and it is to be hoped that a prompt and united effort will be made to secure a substantial sum from the proposed State grant to assist deep sinking. The decrease on the half-year's operations is 3981 tons and 7047 ounces, and the average yield per ton has fallen 1 dwt. 1 grain. As we have before pointed out, the fall in the average is due to the fact that attention is being directed to the large lodes, from which, although the returns are small, a fair profit is obtained.

THE Wealth of Nations Mine, says the *Western Australian*, was found by the Dunn Brothers, who have been prospecting for a party of Perth capitalists, amongst whom are Mr. Alexander Forrest (brother of the Premier), Mr. W. E. Marmion, Mr. F. E. Monger, Mr. Hassell, Mr. McNeil, and Mr. Crossland. The mine appears to be located about 40 miles north of Coolgardie, and a protection area of 34 acres has been applied for. The Dunns came into Coolgardie with 440 lbs. of quartz, from which they expect to get 1800 ounces. They left a big block weighing 152 lbs., and estimated to contain at least half gold; it was impossible for two men to move it, and an 8 lb. hammer in muscular hands made no more impression than if a block of pig lead were being struck. The discoverer estimates that there are at least 2 cwts. of gold in this piece. One of the most extraordinary features of the find is that the reef at the point where the specimens were found is 14 feet wide, and will average 4 feet to 5 feet along the whole length of the outcrop. The Dunns started back on August 9, and were followed by at least 100 mounted men and nearly as many diggers, with teams carrying swags and provisions.

SOME remarkably rich gold has been struck in the main shaft of Bayley's at the 250 feet level, says the *Miners' Right*. It is the best looking quartz yet seen on the field, full of arsenical pyrites, but carrying a large quantity of heavy free gold, scattered through it in coarse dabs. The shaft is being sunk across the reef, which shows over 7 feet wide in clean stages. A tramway is being laid from the Everard and Cockshot shaft on the northern block, from which nice stone is being raised.

THE *Standard* Berlin correspondent states that a stratum of potash, 73 metres (over 230 feet) in thickness, has been discovered at a depth of 607 metres in the Duchy of Brunswick. The valuable find belongs to the State.

THE Union Company's steamer *Scot*, which sailed on the 12th from Cape Town, took gold to the value of £263,000,

NEWS FROM THE COLLIERIES.

NOTES ON THE INDUSTRY.—STATISTICS AND REFERENCES.

A CONFERENCE took place on Wednesday in Glasgow between the non-associated coalmasters in the West of Scotland and a section of the executive of the Scotch Miners' Federation, with a view to the settlement of the strike, which has now lasted for nearly 12 weeks. The meeting was convened by Lord Provost Bell, who had agreed to act as intermediary, and was held in the City Chambers. At the outset a letter was read from the coalowners declining to enter on the consideration of the federation terms, to which the delegates were pledged to adhere at a conference held the previous day. To discuss these terms, the employers said, would only have the result of wasting time and prolonging the strike, but they were prepared to come to an arrangement on the following conditions:—"(1) The men to return to their work this week at the rate of wages existing before the strike, with the promise that we agree to promote a conciliation board, and, in order to give time for friendly arrangements, the rate of wages existing before the strike to be in force until the end of January, 1895; (2) unless the men return to their work to a fair extent, say two-thirds, within a week, then these terms are withdrawn." Mr. John Weir, on behalf of the miners' delegates, said that they had no authority to discuss terms other than those recommended by the federation.

A FIRM of London shipowners have, we are informed, been asked for a tender for carring 50,000 tons of German coal from Stettin to Genoa. This (writes our informant) ought to be a warning not to drive trade away from this country, which will inevitably happen if the cost of getting coal be enhanced. There is reason to believe that the purchasers of the German coal have hitherto obtained their supplies from South Wales.

THE adjourned Conference of the Scotch Miners' delegates by 33 votes to 28, decided on Thursday to recommend the acceptance of the terms agreed to by the non-associated masters at the meeting in Glasgow on Wednesday—that the men should return to work at the old wages, and that a conciliation board should be formed within six weeks; the rate of wages existing before the strike to be in force until the end of January next. It is still possible, however, that the men themselves may decide to stand out for the full Federation terms.

THE associated masters, at a meeting held on Wednesday, resolved to adhere to their former position so far as the federation terms are concerned, but it is believed that they would not be unwilling to accept the modified proposal.

PATENTS, MINING, AND FINANCIAL TRUST.—Under the winding-up order made against this company accounts have now been issued showing liabilities expecting to rank £76,454, and assets (cash at bankers) £3 14s. 6d. The deficiency as regards contributories is returned at £93,999. From the observations of Mr. S. Wheeler (the Official Receiver and liquidator) it appears that the trust, which was registered in 1890 with a nominal capital of £100,000 was formed for the purpose of acquiring inventions, the purchase and development of patents, and the promotion of companies. A number of companies were promoted by the trust, and dividends amounting to about 20 per cent. were paid during the years 1891 and 1892, and it is stated by one of the directors that before the declaration a careful valuation had been made of the assets of the trust, and that large amounts had been writen off the nominal value of the shares and debentures of the various companies before anything was carried to the revenue account. The stocks and shares, however, held by the trust at the date of the winding-up order are estimated by the directors to be of no value. Mr. Chudleigh (the secretary) attributes the failure of the company to the want of the working capital.

REPORTS FROM THE MINES.

*** We find it necessary to announce that, owing to the vast numbers of mine reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issue in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to let their reports, etc., reach us early on Fridays, when it is not possible to let us have them earlier in the week, their doing so would go far to ensure their insertion, and to promote the completeness of our Mining Intelligence.*

BRITISH MINES.

GREEN HURTH.—August 7: There is no change to note in any of the workings this week. The south forehead on Annie's vein continues poor. The headings in the back of the level are producing their usual quantity of ore worth 1½ tons and 3½ tons per fathom. The south forehead on the south-west branch vein is still nipped and poor. We have nothing new in west crosscut south of Swan's shaft. The end is in clean rock at present, but I feel confident we have another part of the vein yet to find, so will continue crosscutting westward.—W. Gray.

LEADHILLS.—W. H. Paull, September 10: Brown's vein. Good progress continues to be made in the driving of the 160 fathom level north and south. The vein in this level going south of Jeffrey's shaft is 4½ feet wide, containing a strong mixture of quartz, spar, and lead ore, and will produce 40 cwts. per fathom. The vein in same level driving north of Wilson's shaft contains a little more quartz than of late, but no other change therein. In the winze sinking below the 145 fathom level south of Wilson's shaft the vein is 4 feet wide, improving, and now yielding some good saving work for the dressing floors. The vein in the two stopes over the 145 fathom level north of Jeffrey's shaft will average 3½ feet wide, and is worth 25 cwts. of lead ore per fathom. In the 115 fathom level driving north of Jeffrey's shaft the vein is 4 feet wide, composed chiefly of spar and stone, strongly spotted with lead ore at times. No. 1 stope over this level north of Jeffrey's shaft has improved, and will now produce 45 cwts. of lead ore per fathom. The vein in the 100 fathom level driving south of Wilson's shaft is 3 feet wide, composed of quartz, iron pyrites, and stone, rather dark for producing ore. The ground in the crosscut going east at the 100 fathom level towards Raik vein is a little more favourable for exploring. In crosscutting west at the 100 fathom level, north of Wilson's shaft, nothing further of note has been met with. In No. 1 stope above drift over the 100 fathom level south of Wilson's shaft the vein is worth 50 cwts. of lead ore per fathom. No. 2 stope over ditto is producing 80 cwts. of lead ore per fathom. In stope over the 85 south of Wilson's shaft the vein is 5 feet wide, and will produce 40 cwts. of lead ore per fathom. In stope below the 70 south of Wilson's shaft the vein is 4 feet wide, yielding 25 cwts. of ore per fathom. The vein in stope above the 50 south of flat rod shaft is 4½ feet wide, and will yield 45 cwts. of ore per fathom. In stope below the 35 south of flat rod shaft the vein is producing 25 cwts. of ore per fathom. At Gripp's adit level going south the Sarrowcole vein is 3½ feet wide, showing a little lead ore at times with indications for improvement.

PHŒNIX UNITED (Liskeard).—September 12: Setting report. We have made considerable progress with forking the water since our last setting report, and within the next four weeks, shall have reduced the 200 plunger lift. In the 100 end west we have driven during the past four weeks 11 fathoms, the end producing average quality tin stuff. The various stopes throughout the mine are yielding their average quality tin stuff, the lode being worth from £9 to £15 per fathom. We have 13 tribute pitches working by 52 men at tributes, varying from 6s. to 12s. in the £.—John Williams, John Rundle, William Manly, James Hosking.

POLBERRO.—We have holed both sections of the work at Trevaunance engine shaft, having sunk and risen the entire distance of 32 fathoms since the last meeting. The lode in the 26 east, on the Pink lode, is about 4 feet wide, and yields 42 lbs. of tin to the ton. The 26 east on the South House lode yields 38 lbs. to the ton. There is no other change of importance since last report.—(Signed) Charles Thomas, John Harper.

WHEAL AGAR.—Redruth, September 8: Setting report. Robarte's engine shaft to sink below the 320 fathom level on the new north lode by 15 men and two boring machines at £40 per fathom. This shaft is now down 9 fathoms below the level, and in six weeks from this we hope to complete the depth required for taking up two drives east and west on the line of the lode at the 330 fathom level. Also to cut across same south and fully test its width and worth at that point. Its value at present for length of shaft and width of same is £50 per fathom, or for the 9 fathoms already sunk the average has been 56 lbs. of black tin to the ton of stuff. The 320 fathom level to drive east of shaft by six men and a machine at £12 per fathom. The lode in the last 6 feet driven has greatly improved in character and yield, now worth £15 per fathom. We attach great importance to this point seeing its letting out water so freely and draining the 300 fathom level above, in which a fairly good lode was driven through and has since been stoped in the back. We take this as indicative of a connection between the two points, and hope for a still further improvement in the lode as the end advances. We have two stopes working in the back of this level by 18 men; worth for tin £10 per fathom. The 312 fathom level to drive east of crosscut by six men and boring machine at £11 per fathom. The lode is becoming more settled and better defined, giving every indication of its entering the same channel of ground on improved lode, as seen and driven on the level below.—Great lode. At the 245 fathom level we have put in timbers and footway from this to the 235 fathom level, which has enabled us to see the nature of the ground, and examine the character and worth of the lode which we found to contain a large percentage of arsenic and a fair average for tin, but to work this ground advantageously we purpose to drive the 245 fathoms level west of this crosscut by six men at £9 per fathom. The lode at present is of a very promising character and worth £12 per fathom for tin and arsenic. There are three stopes working on this lode, one in the back of the 270, one in the bottom of the 255, and one in the bottom of the 245, each worth for tin and arsenic £13 per fathom. In the tribute department we have 12 pitches at work by 43 men at an average tribute of 10s. in the £.—Surface work. We still continue to extend and improve our slime-dressing floors, and the Tuckingmill Foundry Company are making rapid progress in building the engine and boiler house for their new air compressing plant. Some portion of the new machinery will be on the mine in a week from this, and by the end of the month in an advanced state if not complete for commencing work, by which we hope to have means of developing the mine with greater speed.—William Hambly, R. Daniel, M. D. Penhale.

WEARDALE.—Report on Weardale Company's Mines for week ending September 8:—Groverake. Adamson's drift west, vein 3 to 4 feet wide of spar, poorer in ore and slow to drive, end worth 16 cwts. per fathom. Firestone drift west, vein sparry and poor in ore, worth 6 cwts. per fathom. We are crosscutting to the north side to prove vein. Firestone drift east sparry vein, poor in ore, worth 8 cwts. per fathom. Loop level to take water from Rake level, sparry vein, no ore to value. Cubic fathom stopes worth 12, 16, 14, 14, 14, 12, 12, and 8 cwts. per fathom. Groverake tribute ore returned for the week 25 bings.—Boltsburn. Stopes above Watts' level in vein worth 12 and 18 cwts. per fathom. Stope in north flatt worth 12 cwts. per fathom. Stopes in south flatt worth 20, 36, 18, 34, 30, 20, 18, 16, and 20 cwts. per fathom.—Greenlaws. Nattrass Gill drift stopes worth 15, 15, 18, and 15 cwts. per fathom.—Lowe's drift. Walton's rise in scar limestone continues very hard and nipped. The stope in Tees sump continues a strong and sparry vein, but has rather less ore, worth 26 cwts. per fathom. Greenlaw's tribute, ore returned for the week 27 bings.—Sedling. Driving in the 64 level east the vein is about 3 feet wide, with 1 foot of stone in the middle; the rest is fluor spar mixed with ore, end worth 12 cwts. per fathom. Stopes above 64 level east worth 16, 16, 16 and 18 cwts. per fathom. Stope above 64 level west worth 16 cwts. per fathom. Driving east in the 74 level the vein is about 3 feet wide, composed of fluor spar and hard rider mixed with ore, end worth 16 cwts. per fathom. Sinking below the 74 level is in a hard hazel post 1 2-6 fathoms down; there is 9 inches of plate under the scar lime. Ore raised for the week, 67 tons; ore dressed for the week, 98 tons; ore, slag, and fume smelted for the week, 128 tons; producing 66 tons of pig lead.

COLONIAL, INDIAN, AND FOREIGN MINES.

PAHANG CORPORATION.—I hereby submit to you progress report for the month of June. Pollock's vertical shaft. I regret to say progress has been very slow during the past month owing to our meeting with very hard country. A further depth of 8 feet only has been added to the total, which is now 245 feet from the surface. Had we made anything like fair progress I expected to have had the sinking completed by this, but it will now take nearly another week to reach the desired depth, so as to be well clear of timber when sinking is resumed again.—No. 1 below adit. As this drive and the drive from Campbell's crosscut is now connected there will be no need in the future monthly mining reports to refer to the drive from Campbell's, so that the workings at this level will be the workings in No. 1 below adit.—Pollock's. The only development in progress at this level is the winze in the end of drive back west from the bottom of C winze, and which was mentioned in last report has been sunk on the slide. It has been sunk to a depth of 15 feet below the floor of level, and carried ore down to that point worth nearly 20 per cent. black oxide. Below this point the ore has become very poor, but I intend to keep sinking for a time in the hope of meeting with another rich body of ore deeper. As this winze was started at the western end of the shoot of payable ore, it is quite possible we may lose the good ore in sinking, as I think it may pitch away eastward at rather a sharp grade. So far as we have sunk the water is not heavy. The stopes over the level in the western end of shoot are producing payable ore, but it is not near so good as the ore coming from the eastern end of shoot. The crosscourse at the bottom of B winze seems to be the division of the two sections, as eastward from it for a distance of over 200 feet the ore is much better than it is to the westward.—Jeram Batang, No. 1 above adit west. The lode here has been in blank ground since early in the month, and the country passed through has been very hard. A distance of 20 feet has been driven, making a total length from crosscut 121 feet. I hope to soon meet with a change for the better here.—(Signed) Wm. Straughan.

QUEEN'S BIRTHDAY UNITED.—The following mail advice has been received from Mr. W. T. Hansford, the company's local secretary at Dunolly, dated August 7: Queens Birthday Mine.—Main shaft. Crosscut at 700 foot level. Driven 12 feet, appearance of quartz leaders at face indicating that we are on the right track of lode.—Centre shaft. No. 2 level winze sunk 13 feet, depth 31 feet, reef at bottom of winze 2 feet 6 inches wide, gold in solid stone. No. 3 level extended 12 feet in stone. It is now under where the winze will hole through, as soon as we are in 15 feet further we intend starting a rise to meet the winze. The lode at the face carries a quantity of mineral and gold, visible in the solid stone, which is about 2 feet 6 inches wide.—Belgium Perseverance Mine. Crosscut extended 24 feet towards Perseverance, total 33 feet. The men driving at 100 feet report improvement in prospects at face. We shall have to drive 90 feet to connect with whip shaft, when, if any quantity of payable stone is proved to exist here, we shall be able to work it properly without risk to men's lives from the old workings overhead.

AUSTRALIAN BROKEN HILL.—The mining manager reports by mail for the fortnight ended August 2:—Block 96, 280 level east, prospecting drive No. 4. Rise, stopes driven 28 feet. Stoping on rich vein continued, yielding native silver, horn silver, chloride, and iodide of silver. An improvement has taken place in the lower stopes, the ore being more compact, and the shoot seems to be trending in a south-western direction and downwards. The ore in the north-western face is cut out at present, but the pyrites vein is showing very strong.—280 feet level west. Stopes driven 17 feet. No change in lode. The inflow of water being too heavy have transferred men to stope above the level. Incline sunk 2 feet 6 inches; total 569 feet 6 inches. No change. The lode is about 12 inches thick and shows galena, fahlerz, and ruby silver.—No. 4 east of incline. Stopes driven 12 feet. A little galena and fahlerz has been met with. No. 1 rise off No. 4 east off incline driven 8 feet 6 inches. No change.—Tributers' stopes. 180 level east driven 6 feet. 280 level west No. 1 block driven 8 feet. No improvement showing here. These men have taken a block of round west off the winch chamber on the 280 level. No. 2 block driven 9 feet 6 inches. This party of tributers are working a block of ground above No. 2 winze yielding a fair quantity of good grade galena.—Note. The quantity of rock mined during the fortnight was 3381 cubic feet.

AFRICAN CONSOLIDATED.—Manager's report: Since my last I have been to Middleburg to engage workpeople, obtain materials for building (compounds), utensils, ropes, &c. Although most difficult to obtain transport wagons, I hope to have all the materials on the ground before my next letter.—Shaft. I have previously said that the railway runs within 600 yards of No. 1 shaft, and it is upon this foundation that operations will be commenced. The shaft is substantially sunk through good material, and the sides are fairly solid, requiring little or no repair.—Coal. I had an enquiry for 2500 bags of coal yesterday for this railway, delivery to commence in one month—the price 5s. per bag delivered—and hope to arrange this next week, and in the meantime shall make provisions. The price is good, leaving a clear profit of 22s. per ton. A correspondent writes:—"Whenever you are ready to supply coal my firm will be glad to join with you in disposing of it in Delagoa Bay." As far as I can ascertain up to the present, the railway company, so far, has been using coal from the Dundee Colliery in Natal. This coal has to be brought some distance to the port of Durban, and shipped from there to Delagoa Bay. The Volksraad has fixed the duty upon coal imported into the Transvaal at 7s. 6d. per ton.—The railway. This has been pushed forward, and is now quite complete about 40 miles east of this property, and notice has been published of the coach service being discontinued and the long line of 165 miles being opened for traffic. In the circular accompanying the above the secretary remarks:—With reference to the shafts, No. 1 is about 600 yards from the railway, but it will be remembered No. 3 shaft is only about 200 yards. The railway, it is seen, is now completed, and, it may be supposed, is running not a great distance from the company's property, where, however, it is very nearly ready for opening. I have pleasure in directing attention to the fact that all advices from the company's property are of a most satisfactory character, and point to a very prosperous future.

BALAGHAT MYSORE.—From Captain Jos. Pryor, August 21: Ogle's shaft. This shaft has been sunk to a depth of 35 feet 6 inches below the 800 feet level. The quartz is now 10 inches wide, and assays 2 ounces 4 dwts. 4 grains. We hope now that our pitwork is in such a complete and satisfactory order to push forward with the sinking of the shaft with greater speed, that we may reach the next or 870 feet level at a comparatively early date. The 800 feet level south has been advanced with hand labour 5 feet 6 inches, or 23 feet 2 inches from the shaft. The lode is improving in appearance, and now yields a little quartz which assays 8 dwts. 14 grains. The 800 feet level north has been driven (with hand labour) 6 feet, or 208 feet from the shaft. The quartz varies in size from 6 inches to 9 inches wide, and assays about 5 dwts. We think it will, however, soon improve, both in size and quality. The No. 1 winze in the bottom of this level has been sunk 7 feet, or 70 feet below the level. The quartz is 1 foot 6 inches wide, and assays 5 ounces 10 dwts. 14 grains. Having now reached the necessary depth for the new or 870 feet level, we have suspended the sinking, and just started driving a level south from the bottom of the winze so as to effect a communication with Ogle's shaft as early as possible. The No. 2 winze has been sunk 4 feet 9 inches, or 15 feet below the level. The quartz varies from 9 inches to 3 inches wide, and assays 3 ounces 18 dwts. 5 grains. The stopes in the bottom and back of the 800 feet level north yield quartz of from 12 inches to 14 inches wide, and assay on an average 1 ounce 18 dwts. 15 grains. The stopes in the bottom and back of the 730 feet level north produce quartz of from 9 inches to 12 inches wide, and assay on an average 1 ounce 6 dwts. 19 grains. The stopes in the bottom of the 660 feet level north have been holed to the 730, and are continued below this level. They yield quartz of from 6 inches to 9 inches wide, and assay on an average 19 dwts. 7 grains. The crosscut east (not west, as was entered in error in my report last fortnight) at the 500 feet level opposite the shaft has now been advanced to a distance of 12 feet 6 inches from the shaft.—Haines' shaft. We are pushing on as fast as possible with the securing of the ground around this shaft, and hope to soon get it so thoroughly secured as to enable us to remove the Cameron pump, recently fixed at the 800, to the 870 feet level. We have also done a little towards sinking the shaft and cutting the ground for tip-plat, the former being now above 6 feet below the level. The quartz is from 9 inches to 1 foot wide, and assays 7 dwts. 10 grains. The 870 feet level north has been driven 16 feet 6 inches, or 45 feet 9 inches from the shaft. The quartz varies from 3 feet to 1 foot wide, and assays 5 dwts. 2 grains. The 870 feet level south has been extended 21 feet 6 inches, or 60 feet 6 inches from the shaft. The quartz varies from 4 feet to 1 foot wide, and assays 7 dwts. 10 grains. The 800 feet level south in the eastern part has been suspended for the present and the men put to force the driving on the western part of the lode—viz., the level from the bottom of the 730 midway winze, and reported in my last as having been holed to the 800 feet level. Here the quartz is from 6 to 9 inches wide, and assays 9 dwts. 2 grains. The No. 1 winze in the bottom of this level has been sunk 5 feet 9 inches or 62 feet 9 inches below the level. The quartz varies from 1 foot to 6 inches wide, and assays 8 dwts. 14 grains of gold per ton. The No. 2 winze has been sunk 5 feet or 21 feet 6 inches below the level. The quartz here is 2 feet 6 inches wide, and assays 10 dwts. 2 grains. The stopes in the back of this level produce quartz of from 9 inches to 15 inches wide, and assay on an average 11 dwts. 21 grains. A stope in the back of the 800 feet level north yields quartz of about 1 foot wide and assays 5 dwts. 2 grains. The stopes in the back of the 730 feet level produce quartz of from 6 inches to 1 foot wide and assays 6 dwts. 7 grains.—Tennant's shaft. This shaft has been sunk 6 feet 3 inches or 11 feet 3 inches below the level. The lode is still unproductive—it however presents a more kindly appearance. In addition to the above we have also cut the necessary ground to the same depth for a tip-plat. This is now sufficiently deep for our requirements; we have therefore reduced the shaft to its ordinary size, and shall consequently now be enabled to push forward the sinking with greater speed. The 420 feet level north has been driven 7 feet 9 inches or 20 feet 9 inches from the shaft. The lode has recently very much improved in appearance and now produces a little quartz with every promise of soon further improving. The 420 feet level south has been extended 5 feet 9 inches or 19 feet 9 inches from the shaft. The ground here is rather unsettled and unproductive, I am not fully satisfied that we are on the main part of the lode. I have just started to cross cut east and purpose extending it a few feet to test the ground in this direction. The 350 feet level north has only been advanced 12 feet or 155 feet 9 inches from the shaft. The lode is from 3 feet to 4 feet wide, and of a promising appearance, but as yet it does not produce sufficient quartz to value. The winze in the bottom of this level has been sunk 6 feet 3 inches or 25 feet 9 inches below the level. The quartz is 1 foot 3 inches wide, and assays 6 dwts. 7 grains. The rise in the back of this level has been advanced 6 feet 6 inches or 51 feet 3 inches above the level. The quartz is 1 foot wide, and assays 7 dwts. 10 grains. We have again resumed the driving (but with hand labour) of the 350 feet level south. It has been extended 4 feet or 172 feet 3 inches from the shaft. The lode continues of a very promising appearance, and produces a little quartz, but as yet it is not enough to value. The winze in the bottom of this level has been sunk 4 feet 9 inches or 24 feet 6 inches below the level. The quartz is getting somewhat smaller, being now from 1 foot to 9 inches wide. It, however, assays 5 dwts. 2 grains.—Surface. The general surface work is being proceeded with in the usual manner.

BRITISH BROKEN HILL PROPRIETARY.—Extracts from mining manager's report for week ending Wednesday August 1:—Blackwood (No. 1) shaft, 200 feet level. Have stopped following patches of ore around the upraise over north drive off east crosscut for the present.—400 feet level. North drive off west crosscut extended for week 9 feet, total length 49 feet. Face in hard low grade sulphides. South drive off same crosscut driven 6 feet during week, total length 70 feet. Face showing more and better sulphides.—Howell (No. 2 shaft). Have finished timbering the shaft and are starting to cut out plat on west side of shaft.—200 feet level. The east crosscut on 10th floor, far north stopes, has been driven 18 feet during week, making its total length 78 feet, the last few feet being in carbonate of lead ore of fair grade. Face still in ore.—Retallick shaft, 115 feet level. Winze in end of No. 3 west crosscut has been sunk 5 feet, total depth 88 feet, and connection made with south-west drive from Marsh (No. 6) shaft.—Marsh (No. 6) shaft second level. Have finished winze chamber in north drive off No. 3 east crosscut, and have sunk the winze 10 feet through fair grade carbonate ore. Have also been working in back of above drive at a point 15 to 20 feet north of winze where we will start uprising. The No. 4 east crosscut off south-west drive has been extended 12 feet during week, total length 19 feet, face showing patches of carbonate ore. Have been following rich chutes of ore above the No. 2 and 3 west crosscuts during week, and have broken some good grade carbonate ore.—Stopes. No. 2 west crosscut south stope. We have broken during the week 2 tons first ore, assaying 22 per cent. lead, and 78 ounces silver per ton, and 3 tons seconds, assaying 28 per cent. lead, and 19 ounces silver per ton.—No. 3 west crosscut north stope. Have broken 10 tons averaging face samples 37 per cent. lead and 172 ounces silver per ton.—No. 3 west crosscut south stope. Have obtained 15 tons, averaging 23 per cent. lead and 11 ounces silver per ton. Week's assays vary from 3 per cent. to 48 per cent. lead and 5·5 to 246 ounces silver per ton.

BARRETT GOLD.—The manager, writing on 17th ult., says He is hopeful of a general all round improvement after August, as a result of a series of tests and experiments which were being made in connection with the slimes and tailings by an expert specially sent up for the purpose from Johannesburg by the African Gold Recovery Company.

CRAVEN'S CALEDONIA.—The following fortnightly report has been received from the mine, dated Charters Towers, July 19:—No. 9 level has been extended a further distance of 10 feet, making a total distance of 272 feet from the slide. The reef in the face is a bit smaller again, but in the first three stopes the reef will average fully 10 inches, and the next two stopes 9 inches. The winze going down from No. 9 level has been sunk an additional 9 feet, making a total of 142 feet from the level—there are about 9 inches of stone at present in the bottom. In the underhand stope from the level there is about the same thickness of reef as last fortnight. No. 8 level has been extended a further 7 feet, making a total of 348 feet from the slide. The reef in this level is about 7 inches thick. In the first three stopes there are about 7 inches of stone, and in the next 4 stopes about 9 inches. The men were taken from the No. 6 level and started in the No. 7 level; the latter has been extended 14 feet for the fortnight, making a total of 420 feet from slide, and there is about 4 inches of reef on the footwall, also about 2 feet of formation with leaders intermixed on the hanging wall. In the two stopes over No. 6 level, there are about 7 inches of very good stone. No. 4 level has been extented 23 feet from the end of the cross cut, making a total of 73 feet from the old level. There are about 7 inches of reef on the footwall and about 8 inches on the hanging wall, and it seems to be improving in quality. The haulage for the fortnight is 144 tons, making a total of 160 tons in the paddock. At the Victoria and Queen shaft, the eastern level has been extended 8 feet, making a total of 35 feet from the boundary peg, and the reef is about 6 inches thick and seems to be of better quality. The reef in the stopes over this level is also improving in size. We raised about 12 tons of quartz from this shaft, making a total of 35 tons in the paddock.

CITY AND SUBURBAN.—From the manager's report for July: Profit for July, £5047 8s. 8d. The south reef has been extended on the third level 143 feet 11 inches, exposing 2776 tons. The average width of the reef is 20·75 inches, and the average value by fire assay 60·37 dwts. On the fourth level the south reef has been extended 254 feet 3 inches, exposing 5685 tons. The average width of the reef is 36·10 inches, and the average value by fire assay 24·93 dwts. On the fifth level the south reef has been extended 164 feet 6 inches, exposing 3667 tons. The average width of the reef is 34·8 inches, and the average value by fire assay 25·40 dwts. The main reef leader has been extended on the third level 319 feet 9 inches, exposing 6639 tons. The average width of the reef is 31·33 inches, and the average value by fire assay 12·44 dwts. On the fourth level the main reef leader has been extended 282 feet 7 inches, exposing 5242 tons. The average width of the reef is 26·70 inches, and the average value by fire assay 15·63 dwts. On the fifth level the main reef leader has been extended 221 feet 3 inches, exposing 4365 tons. The average width of the reef is 30·20 inches, and the average value by fire assay 15·25 dwts. Estimated quantity of ore reserves in the mine 31st July, 1894, 211,591 tons; on surface, 7500 tons; total, 219,091 tons. 14,408 tons of ore were mined during the month—6318 tons from south reef, and 8090 tons from main reef leader. The results obtained this month from the new 80 stamps of only about 8 dwts. per ton from 19·56 dwt. ore is accounted for in the large amount of absorption of gold amalgam that takes place on new copper plates. Similarly as regards the new cyanide works, a large amount of gold remains on the new zincs, and a certain quantity in solution, which is not recovered during the first month of working, and the profit of £800 on these works for the first month is satisfactory. The proportions of the south reef and main reef leader crushed this month were about equal, giving together on average assay value of over 16 dwts. per ton. The 50 stamp mill crushed main reef leader almost entirely, of a value of over 12 dwts. From the first of the current month the tailings from both the 80 and 50 stamp mills are conveyed direct to the new cyanide works for treatment, and from this date the cost of treatment at these works will be worked out over, total tonnage crushed by both mills. The expenditure and revenue of the old cyanide works, now working off the accumulated tailings from the 50 stamp mill, will be accounted for separately in the monthly profit and loss statements.

DURBAN ROODEPOORT.—July: Tons milled, block 2 south, 3405; block 1, main reef, 1870; do. south, 1350; total, 6625 tons producing 3258 ounces. Tailings treated, 8890 tons yielding 1906 ounces.—Summary of work during month of July: Block No. 1: Driving: 180 feet level south leader 17 feet; 260 feet do., 27 feet; west south leader 15 feet; total driving 59 feet.—Sinking: 178 feet level, winze west of crosscut to 260 feet level, 21 feet.—Rising: 260 feet level, west main reef, 39 feet.—Cross cutting: 178 feet level, west of shaft to south reef, 27 feet; 260 feet level, south cross cut to south leader, 33 feet, total 60 feet.—Summary of work: Total driving 59 feet; sinking 21 feet; rising 39 feet; cross cuttting 60 feet; grand total 179 feet. Block No. 2, main incline shaft, sunk 67 feet; driven 580 feet. Level, east south leader, 68 feet; 380 feet level, east south leader (east of incline shaft) 75 feet; east south leader (drive at clay dyke in rise) 18 feet; total driving 161 feet. Sunk 580 feet. Level, winze (east of incline shaft) 50 feet; hoisting chamber 5 feet; 580 feet level, winze west of incline shaft, 57 feet; hoisting chamber 5 feet; total sinking 117 feet. Risen, 580 feet level, west of incline shaft, 47 feet.—Summary of work: total driven 161 feet; sunk 117 feet; risen 47 feet; main incline shaft 67 feet; grand total 392 feet.

HARRIETVILLE GOLD.—Fortnightly report of Mr. T. G. Davey, superintendent dated August 3: Mons Meg mine. Rise at back of 100 feet level south of main winze below tunnel D advanced 11 feet, total 38 feet. Lode continues to be wide and somewhat auriferous; should soon reach fault. North rise at same level advanced 14 feet, total 51 feet. The rise has here reached the foot of the fault, and is very wide, and almost horizontal. A small vein of quartz on the hanging wall is highly auriferous, and we should soon develop a fair body of payable stone. South drive 240 feet below tunnel J extended 6 feet, total 54 feet. Lode wide carrying small vein of auriferous quartz. Rise at back of level advanced 12 feet, total 33 feet. Lode 18 inches wide, and carrying visible gold.—Stopes. Lode in stopes at back of drive south of tunnel D 10 feet wide, and of payable character occasionally showing coarse gold in stone. Underhand stope at same level. Lode 15 feet wide and payable. South stope at back of 240 feet level below J. Lode 18 inches wide, and carrying visible gold. Stope over 44 feet level, lode 5 feet wide, with occasional bunches of highly auriferous stone.—Saint Bernard mine. The snow has thawed sufficiently to enable us to continue operations at this mine. In clearing the drive north of bottom tunnel, a little gold is still being met with. The influx of surface water at the upper tunnel prevent our reaching the rich vein at the Pennsylvania shaft, so that we have decided to develop it for the present from a drive above the point at which it was discovered.—Returns. We cleaned up on the 25th ulto. for the following returns, viz.: Mons Meg mine, 508 tons, yielding 117 ounces 12 grains of gold. Pyrites works, 51½ tons concentrates for 38 ounces gold. Total for four weeks 155 ounces 12 grains of melted gold.

MOUNT LYELL.—The London committee have received the following report from the mine for the week ending July 26: Engine shaft 100 feet level. The south drive has been advanced 5 feet, total 55. Country ironstone, quartz and schist, bad for breaking.—Intermediate. The north level has been driven 2 feet, total 42. Work at this point has been stopped for the present till the ore stopes overhead are started.—50 feet level. The south drive has been driven 3 feet, total 154. The pyrites have made a sharp turn to the right, and the rock in the face is schist, which will be easier driving.—No. 1 winze. The winze has been sunk 4 feet, total 35. The country is ironstone schist and quartz.—Stopes. Stoping on the floor above the north level has been carried on as usual; the vein of rich ore is rather thinner than it was.—No. 4 tunnel rise over old winze. The rise has been put up 7 feet. The two veins of rich ore show no change, still averaging 8 inches of high grade ore.—No 5 tunnel. The tunnel was driven 1 foot, total 713 feet. Some repairs made and handed over to the contractors on Sunday last; since then it has been driven 5 feet, total 718. There is no change in the rock.—Ore raised, 313 bags weighing 14 tons 18 cwts. 3 qrs. 10 lbs., containing 10,068 ounces silver, and 3 tons 6 cwts. 1 qr. 9 lbs. copper, or an average of 789 ounces silver, and 18 per cent. of copper per ton.—Ore despatched. 303 bags, weighing 14 tons 12 cwts. 1 qr. 14 lbs., containing 9604 ounces silver, and 3 tons 1 qr. 5 lbs. copper.

MYSORE REEFS.—Fortnightly report of Captain M. Scantlebury, mine agent, dated August 21: Underlie Shaft. This shaft has been sunk 8 feet, now 39 feet 6 inches below the 250 feet level. The lode is still in a disordered state, the assay value being only 1 dwt. 22 grains of gold to the ton. We shall, I think, see a change for the better soon. Pieces of quartz came up yesterday showing visible gold. 250 feet level south has been extended 13 feet 6 inches, Now 48 feet from shaft. The lode is 1 foot wide, and has varied in value from 4 dwts. 13 grains to 15 dwts. of gold to the ton.—Stope in back of 250 feet level north. The lode is 15 inches wide, and worth, according to assay, 4 dwts. 13 grains to 12 dwts. of gold to the ton. Vertical shaft has been sunk by hand labour 4 feet, now 14 feet below 200 feet level.—200 feet level north. Rise above this level has been put up 2 feet, now 18 feet above the level. We have removed this drill 100 feet further north to rise to open up the ground for stoping when necessary. We have had a rock drill cutting out ground to make room to fix a tackle in the winze sinking below the 200 feet level south. We have been hindered considerably with the rock drills during the past two weeks in trying to run the stamps. The water for feeding the boilers has been taken away, consequently the air compressor had to stop.—200 feet level south. The winze below this level has been sunk 4 feet, now 14 feet 6 inches below the level. The lode is 1 foot 3 inches wide, and worth 18 dwts. of gold to the ton. New shaft north of vertical has been sunk 11 feet, now 26 feet 6 inches from surface. At 6 feet below the surface we were obliged to blast the rock. New shaft for water has been deepened 17 feet now 34 feet 6 inches. We have a little water, and I hope in a week more to obtain sufficient to put down a pump.

MYSORE GOLD.—R. Hancock: Mining operations for the fortnight ending August 20: Rowse's shaft, 1460 north of crosscut. This end has been driven 19 feet, making a total distance driven of 123 feet. The lode is 1 foot wide, assaying 1 ounce 12 dwts. 16 grains. This end has been temporarily suspended and the machine put to resume the driving of the crosscut west to ascertain if we are on the main part of the lode or not.—1460 north of winze. This end has been driven 22 feet, making a total distance driven of 46 feet. The lode is 2 feet wide, assaying 7 dwts. 19 grains.—1360 feet level north, south of crosscut. This end has been driven 3 feet, making a total distance driven of 126 feet 4 inches. The lode is 1 foot wide, assaying 1 ounce 6 dwts. 3 grains.—1360 feet level north of winze. The lode in the stope in the back of this level is 7 feet wide, assaying 6 dwts. 12 grains.—1260 feet level north. There are five stopes in the back of this level, the average width of the lode being 4 feet 10 inches, giving an average assay of 1 ounce 6 dwts. 16 grains.—1260 feet level south. Driving south on the fold in the back of this level has been driven 17 feet, making a total distance driven of 125 feet 6 inches. The lode is 3 feet wide, assaying 2 ounces 5 dwts. 17 grains. The winze in the bottom of this level has been sunk 11 feet 6 inches, making a total depth of 39 feet, and communicated with the rise put up in the back of the 1360 feet level south of crosscut. There are two stopes in the back of this level, the average width of the lode being 2 feet 9 inches, giving an average assay of 1 ounce 4 dwts. 3 grains.—1160 feet level north. There are four stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 1 ounce 3 dwts. 22 grains.—1160 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide assaying 1 ounce 17 dwts. 23 grains.—1060 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 19 dwts. 14 grains. We have two pairs of men engaged stripping down side in the bottom of this level, in which the lode averages 1 foot wide, giving an average assay of 14 dwts. 23 grains.—990 feet level north. We have a pair of men engaged stripping down side in back of this level in which the lode is 1 foot wide, assaying 10 dwts. 10 grains.—890 feet level north-east. This end has been driven 17 feet 6 inches, making a total distance driven of 584 feet 7 inches.—890 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 13 dwts. 1 grain.—780 feet level north on new chute. This end has been driven 23 feet, making a total distance driven of 39 feet. The lode is 4 feet wide, assaying 3 ounces.—780 feet level south on new chute. This end has been driven 1 foot 6 inches, making a total distance driven of 4 feet. The lode is 2 feet 6 inches wide, assaying 9 dwts. 2 grains.—780 feet level north. The lode in the stope in the back of this level is 3 feet wide, assaying 10 dwts. 10 grains.—620 feet level north of crosscut. This end has been driven 2 feet 6 inches, making a total distance driven of 256 feet. There is nothing here to report. There are three stopes in the back of this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 8 dwts. 8 grains.—466 feet level north of No. 1 crosscut. This end has been driven 18 feet 6 inches, making a total distance driven of 82 feet. The lode is 4 feet wide, assaying 5 dwts. 5 grains.—236 feet level north. We have a pare of men cutting out ground in the bottom of the rise in the back of this level on line of incline with Crocker's shaft, in which the lode is 1 foot 6 inches wide, assaying 19 dwts. 14 grains.—Crocker's shaft. We have commenced to sink this shaft below the 400 feet level with the machine that was sinking the 1260 winze south sunk 11 feet. The lode is 4 feet wide, assaying 2 dwts.—400 feet level north. There are four stopes in the back of this level, the average width of the lode being 4 feet 3 inches, giving an average assay of 6 dwts. 8 grains.—400 feet level south. The lode in the stope in the back of this level is 3 feet wide, assaying 4 dwts. 13 grains.—296 feet level north. There are four stopes in the back of this level, the average width of the lode being

1 foot 9 inches, giving an average assay of 14 dwts.—236 feet level north. There are four stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 1 ounce 5 dwts. 4 grains.—Taylor's shaft, 466 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 1 ounce 21 grains.—Gilbert's shaft, 520 feet level north. The winze in the bottom of this level has been sunk 8 feet, making a total depth of 38 feet. The lode is 3 feet wide, assaying 1 dwt. 7 grains. The lode in the stope in the back of this level is 2 feet wide, assaying 5 dwts.—520 feet level south. The lode in the stope in the back of this level is 1 foot wide, assaying 1 ounce 13 dwts.—360 feet level north. There are three stopes in the back of this level, the average width of the lode being 2 feet 2 inches, giving an average assay of 19 dwts. 9 grains.—290 feet level north. There are three stopes in the back of this level, the average width of the lode being 2 feet 2 inches, giving an average assay of 1 ounce 5 dwts. 21 grains.—180 feet level south. Taking away arches of ground in the back and bottom of this level. The lode averages 3 feet 3 inches wide, giving an average assay of 2 dwts. 22 grains.—Tennant's shaft. The work of fixing the new pitwork in the shaft has been completed, and the sinking of the shaft has been resumed by hand labour.—600 feet level north. This end has been driven 16 feet 6 inches, making a total distance driven of 76 feet. There are some small branches of quartz mixed with the rock in the end.—520 feet level north. The winze in the bottom of this level has been sunk 12 feet, making a total depth of 43 feet 6 inches. The lode is 2 feet wide, assaying 3 dwts. 22 grains. The lode in the stope in the back of this level is 3 feet wide, assaying 2 dwts.—290 feet level south, north of cross cut. The winze in the bottom of this level has been sunk 15 feet, making a total depth of 31 feet 6 inches. The lode is 2 feet 6 inches wide, assaying 2 ounces 4 dwts.—Schaw's shaft, 450 feet level north, cross cut east. This end has been driven 1 foot 6 inches, making a total distance driven of 32 feet 6 inches. The winze in the bottom of this level has been sunk 3 feet 6 inches, making a total depth of 99 feet 6 inches. The lode is 9 inches wide, assaying 9 dwts. 2 grains. There are two stopes in the back of this level, the average width of the lode being 1 foot 4 inches, giving an average assay of 15 dwts.—450 feet level north, south of crosscut. The winze in the bottom of this level has been sunk 10 feet, making a total depth of 42 feet 6 inches. The lode is 2 feet wide, assaying 8 dwts. 11 grains. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 5 dwts. 5 grains.—320 feet level south of crosscut. The lode in the stope in the back of this level is 1 foot 3 inches wide, assaying 4 dwts. 13 grains.—McTaggart's shaft. We have completed the plat at the 450 and have now put the machines to resume the sinking of the shaft below that point; sunk 8 feet 6 inches, making a total depth of 42 feet below the 450 feet level. The lode is 6 inches wide, no assay made.—450 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, a saying 1 ounce.—Glen shaft, 250 feet level north crosscut west. This has been driven 11 feet, making a total distance driven of 73 feet.—Crosscut east. This has been driven 2 feet, making a total distance driven of 261 feet 6 inches.—Ribblesdale's shaft. This shaft has been sunk 15 feet, making a total depth of 381 feet.—1060 rise. This has been put up 4 feet, making a total height of 34 feet 6 inches.—Williams' shaft, 173 feet level crosscut east. This has been driven 3 feet, making a total distance driven of 62 feet. The health of the camp is good.

NUNDYDROOG.—From Mr. T. P. Grey. Report for the work done for the first fortnight in August: Taylor's shaft sunk 10 feet, total depth 1105 feet. The lode is 2 feet wide, assaying 15 dwts. 6 grains per ton. 1080 north driven 19 feet, total length 94 feet The lode is somewhat smaller, being now 1 foot wide, assaying 16 dwts. 6 grains per ton. 1080 south driven 21 feet, total length 67 feet. The lode is 1 foot wide, assaying 6 dwts. 12 grains per ton. 1000 south crosscut east driven 13 feet, total length 66 feet. We have intersected a small branch of quartz 6 inches wide, assaying 3 dwts. 6 grains per ton. 1000 north driven 21 feet 6 inches, total length 581 feet 6 inches. The lode is looking well, being 4 feet wide, and assaying 3¼ ounces per ton. 1000 north winze sunk 14 feet 6 inches, total depth 28 feet 6 inches. The lode is 1 foot 6 inches wide, and assays 8 dwts. 18 grains per ton.—1000 north. Rise against main shaft risen 19 feet, total height 19 feet. The lode is a fine one 3 feet wide, and assaying 2 ounces 9 dwts. per ton.—920 north, No. 2 drive. driven 11 feet, total length 283 feet. The lode has cut out, and the drift is suspended.—920 north. Rise against main shaft risen 23 feet 6 inches, total height 46 feet 6 inches. The lode is 1 foot 6 inches wide, and assays 10 dwts. 18 grains. We shall hole to main shaft shortly. 680 north crosscut east driven 12 feet 6 inches, total length 70 feet 6 inches. A little water is still coming out of the end. 680 north crosscut west driven 21 feet, total length 82 feet. There is no change to report here. Main shaft sunk 5 feet, total depth 24 feet. The lode is 1 foot 6 inches wide, and assays 10 dwts. 18 grains per ton. Kennedy's shaft sunk 7 feet, total depth 559 feet 6 inches. 520 north driven 26 feet, total length 165 feet 6 inches. The lode is 2 feet wide, and assays 13 dwts. per ton. 520 south driven 26 feet, total length 177 feet. The lode is 1 foot wide, and assays 6 dwts. 12 grains per ton. 440 south driven 5 feet, total length 429 feet. The lode is 4 feet wide, assaying 1 ounce 6 dwts. per ton. 440 north No. 3 rise risen 7 feet 6 inches, total height 86 feet 6 inches. The lode is 3 feet wide, assaying 2 ounces per ton. 370 north crosscut west driven 13 feet 6 inches, total length 47 feet. There is no change to report here.—370 north No. 3 bottom stope. Stoped 8¾ fathoms in a lode 5 feet wide, assaying 16 dwts. 6 grains per ton. The stopes, drives, &c., working by hand labour are as follows:—1000 south No. 1 winze, size of lode 1 foot 3 inches, assay value, 9 dwts. 18 grains. 1000 south No. 2 winze, size of lode 9 inches, assay value, 2 dwts. 6 grains. 920 north No. 1 drive, size of lode 6 inches, assay value, 4 dwts. 6 grains.—840 north crosscut east. 760 north back stope, size of lode 1 foot, assay value, 4 dwts. 6 grains. 680 north winze, size of lode 2 inches, assay value, 3 dwts. 6 grains. 680 north No. 1 bottom stope, size of lode 1 foot 6 inches, assay value, 9 dwts. 18 grains. 680 north No. 2 bottom stope, size of lode 2 feet, assay value, 10 dwts. 18 grains. 600 north No. 1 bottom stope, size of lode 1 foot 6 inches, assay value, 6 dwts. 12 grains. 600 north No. 2 bottom stope, size of lode 1 foot, assay value, 13 dwts. 600 north intermediate, size of lode 6 inches, assay value, 6 dwts. 12 grains. 600 north No. 1 back stope, size of lode, 6 inches, assay value, 1 ounce 7 dwts. 600 north No. 2 back stope, size of lode 1 foot, assay value, 1 ounce 12 grains. 520 north No. 1 bottom stope, size of lode 1 foot, assay value, 7 dwts. 12 grains. 520 north No. 2 bottom stope, size of lode 1 foot 6 inches, assay value, 10 dwts. 520 north No. 3 bottom stope, size of lode 1 foot 6 inches, assay value, 12 dwts. 520 north No. 4 bottom stope, size of lode 1 foot 6 inches, assay value, 13 dwts. 520 north No. 1 back stope, size of lode 1 foot 6 inches, assay value, 10 dwts. 18 grains. 370 north No. 1 back stope, size of lode 1 foot, assay value, 7 dwts. 12 grains.—Kennedy's, 95 north intermediate stope, size of lode 4 feet, assay value, 9 dwts. 18 grains. 95 north No. 2 bottom stope, size of lode 1 foot, assay value, 4 dwts. 6 grains.—160 north crosscut east. 160 north intermediate, size of lode 4 inches, assay value, 16 dwts. 6 grains. 300 south No. 2 back stope, size of lode 2 feet, assay value, 4 ounces 6 dwts. 18 grains. 300 north No. 1 back stope, size of lode 3 feet, assay value, 15 dwts. 300 north No. 3 back stope, size of lode 2 feet, assay value, 8 dwts. 18 grains. 370 south drive, size of lode 5 feet, assay value, 1 ounce 2 dwts. 18 grains. 370 north No. 1 bottom stope, size of lode 1 foot, assay value, 10 dwts. 370 north No. 2 bottom stope, size of lode 1 foot, assay value, 12 dwts. 370 north drive, size lode 1 foot, assay value, 5 dwts. 12 grains. 370 north back stope, size of lode 1 foot, assay value, 1 ounce 10 dwts. 6 grains.—Mills. Both mills and tailings machinery are running well. The amalgam collected up to date is somewhat behind last month.—Health. The general health of the camp is good.—Old mill samples. Rough quartz through stonebreaker, assay value, 18 dwts. 12 grains, smalls, assay value, 1 ounce.—New mill samples. Rough quartz through stonebreaker, assay value 17 dwts. 6 grains, smalls, 15 dwts.

NO. 7 NORTH EAST QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers, July 20:—During the fortnight Perry and party have crushed 30 tons 15 cwts. for 50 ounces 5 dwts. of smelted gold. Carins and party crushed 16 tons 5 cwts. for 9 ounces 9 dwts. 11 grains of smelted gold. This party have since taken the stulls adjoining Goninon and party, and Mills and party have taken the block given up by Carins and party over the No. 4 east level. Total amount of stone raised by various parties 20 tons.

NINE REEFS.—Fortnightly report of Captain John Woolcock, mine agent, dated August 21: Vyvyan's shaft. The stopes in the back of the 220 feet level to the south of shaft continue about the same as last reported. The quartz leader in the No. 1 stope varies from 5 to 8 inches wide, and at times shows gold freely. The lode matter is 4 feet wide, with a well defined hanging wall, but we are obliged to blast out a good deal of the unproductive part with the quartz, and pick out the large poor lumps at surface. The leader varies in value from 18 dwts. to 2 ounces 15 dwts. A sample broken yesterday gave by assay 2 ounces 8 dwts. 2 grains of gold per ton. The No. 2 stope north of winze the quartz is 6 inches wide, and worth by assay 1 ounce 5 dwts. 6 grains of gold per ton. This stope is now a little behind the shoot, but will improve as we gain north.—Bennett's shaft. The cross cut west at the 145 feet level to the north of this shaft has been further advanced 12 feet 7 inches, making a total of 291 feet 4 inches from the level. We have met with nothing of importance since last report. The end continues to let out water, which is indicative of more lode in that direction.—South shaft. We resumed the sinking of this shaft below the cross cut on the 11th inst., since which we have sunk 7 feet 3 inches, making a total of 40 feet 8 inches on the course of the lode from the vertical. The lode at present is 5½ feet wide, very porous, and letting out water freely. It is composed of schist and leaders and veins of quartz. The two last samples taken from the quartz showed colours of gold in the pan, and I am strongly of an opinion that it will soon further improve, it is carrying a well defined footwall, but the hanging wall is unsettled and broken, and has to be timbered, which at present rather impedes the sinking. The crosscut east at this shaft has been extended 12 feet 5 inches, total from shaft 65 feet 5 inches. This drivage has been through clean country rock, so it is very evident that there is no part of the Champion lode to the east of the shaft.—Prospecting. The No. 1 shaft has been further deepened 7 feet 1 inch, making a total of 104 feet 11 inches from surface. The lode is 2 feet wide, and carrying two well defined walls. It is letting out a good deal of water, which greatly hinders the sinking. A sample broken from the lode yesterday, gave by assay 4 dwts. 10 grains of gold per ton. There is nothing to report in the crosscuts driving at the bottom of the No. 4. The ground is very hard indeed, and the coolies can do but little by hand labour. The west crosscut has been driven 1 foot 11 inches, total 8 feet 4 inches, and the east crosscut driven 1 foot 3 inches, total 7 feet 2 inches. We resumed the sinking of the No. 5 shaft on the 15th instant, and have since sunk 2 feet 3 inches, making the total depth from surface 60 feet 10 inches. The lode is 18 inches wide, and carrying a little more quartz. A sample broken from this yesterday gave by assay 6 dwts. 14 grains of gold per ton. There is nothing to call for comment with regard to our machinery or surface operations.—Health. I am pleased to say the general health of the camp is good.

BECHUANALAND EXPLORATION COMPANY.—The British South Africa Company has forwarded to the Bechuanaland Exploration Company the following extract from a letter just received from Cape Town, dated 22nd ultimo: Nutt is at work on the properties of the Bechuanaland Exploration Company. A splendid reef has been exposed on the Matabele property, carrying heavy visible gold. The shaft is down 50 feet, and other open workings show reef running through the whole block. This is thought to be a first class property.—The Bechuanaland Exploration Company's general superintendent has forwarded the following report made by Mr. D. Grove, mining expert, on some of the properties belonging to this company: Home Rule (40 claims) lies parallel with the Bonsor, 50 yards apart, and seems to me to be better situated than the Bonsor, as it forms the crown of the hill, with an enormous cap of matrix and equal burrowings done by the ancients. The underlay of lode where exposed in a shaft 30 feet deep, measures 4 feet 6 inches. There are three shafts on this property sunk to regulation depth. No. 1 shaft shows 6 feet thick, not broken through yet. No. 2 shaft measures 5 feet 6 inches thick, and shows free gold on breaking pieces from the dump.—The Wagga-Wagga (10 claims). The shaft on these claims is mined about 20 feet deep of very hard rock; vein 20 inches thick, which pans very well. There is a small leader, which appears to be a branch of Wagga, as it bears toward that lode: shaft sunk 30 feet, with vein of quartz 2 feet wide, which Clifford says pans well all through, but must be left for a future inspection.—The Chimborazo. This extensive property has all the appearance of the Umrebekwe (Lloyds) and Dunraven, and prospects as well along the whole course of the line pegged off—viz., 20 claims; there are two shafts sunk on the lode—viz., 20 feet and 30 feet deep.—The Outward Bound (20 claims). The lode shows 3 feet thick at middle of shaft depth, but tapers down 1 foot at 30 feet deep. There is another shaft only a few feet apart, but parallel, which at 16 feet measures 4 feet thick; the whole of the stone from both pans very rich indeed—I should say 2 ounces to the ton of quartz. Clifford says it is impossible to get a blank from either shaft. There is a fine stream of water at the bottom of the hill—I should say 250 feet below the level of shafts.

MYSORE WEST AND MYSORE WYNAAD CONSOLIDATED.—Tank block.—The mining manager in India reports by mail under date August 21, 1894, as follows: South shaft. The shaft has been sunk to a depth of 425 feet, making a progress of 5 feet for the half month. The strings of quartz mentioned in last report still continue. 354 feet winze has been sunk to a depth of 33 feet, making a progress of 4 feet for the half month. We have still to remove the staging, winch, donkey pump, &c., before each blast, consequently progress is delayed. The lode in the end is 18 inches, of which 6 inches is quartz, of which average assay of four samples is 1 ounce 14 dwts. 18 grains.—354 feet stope. Lode is 5 feet wide, of which 4 feet is quartz, average assaying five samples 13 dwts. 6 grains. 400 feet north has been driven to a distance of 77 feet 6 inches. Progress for half month 12 feet 6 inches. This end is still very hard, and the width of quartz variable. Lode 1 foot wide, with 6 inches of quartz Value from average of six samples 17 dwts. 6 grains.—400 level south. At 23 feet the ground became broken and the hanging wall flattened until it made a horizontal roof, accordingly we started a cross cut east, and when this had been driven 10 feet 6 inches we struck the lode again, which was 2 feet wide of good solid quartz, assaying 2 ounces. We have blasted off corners of cross cut and continued into the level, the end of which is 34 feet from the shaft. The lode has opened out well, being 3 feet 6 inches. Solid good looking quartz with good walls. Average assay from eight samples 2 ounces 3 dwts. 6 grains. Total ground broken in this level 21 feet 6 inches for half month. The mill run for four days from 3rd to 6th instant, when we put through 35 tons of mixed stuff, of which 17 tons was quartz. This gave 48 ounces amalgam, which yielded 21·5 ounces sponge gold and 20·95 ounces bar gold. We have stopped crushing in order to put up another separator and make some other minor changes in the mill. There is about 90 tons of mixed stuff for crushing.

MOUNT ZEEHAN (Tas.).—Manager reports for week ended July 31:—Argent section, main engine shaft, No. 6 lode, 30 feet level south stope. Raised 38 tons good seconds. A few days will finish this stope. 72 feet level south extended 7 feet; total, 228 feet. Raised 12 tons medium seconds. Lode small, varying from 4 to 15 inches. Stope. Raised 44 tons medium seconds. Lode narrowed to 1 foot. 132 feet level south stope. Raised 23 tons low quality seconds. Lode 1 foot 6 inches to 3 feet 6 inches wide. 132 feet level north stope. Raised 26 tons low quality seconds. 192 feet level No. 4 lode. Risen 3 feet 6 inches; total, 28 feet. Raised 5 tons low quality seconds. Lode same size as last reported, but only carries small quantity galena. Crosscut west to No. 7 lode. Extended 8 feet 6 inches; total, 117 feet 6 inches. Ground is favourable, and letting out water; should cut lode in about 17 feet further.—Concentrator ran 46 hours, and milled 151 tons seconds for 17 tons 11 cwts. concentrates, containing about 13 tons lead and 1208 ounces silver.

NEW VIRGINIA TRANSVAAL GOLD.—The manager (Captain Hodge) reports under date 13th August: Spicer's shaft. Results of assays of samples taken across the full width of reef—4 to 5 feet. No. 1 from north side of shaft 13 ounces 7 dwts. 20 grains. No. 2 from south side of shaft 1 ounce 0 dwt. 21 grains. Captain Hodge adds the great difference is perhaps caused by some visible gold having been taken in the sample. The ore from both points as far as proved is of a splendid quality. I am glad to say we have proved rich ore along the line of this reef north a further distance of 240 to 250 feet. At surface we are sinking at two points and getting good milling ore at each point.

QUEEN CROSS.—Copy of manager's report for fortnight ending July 24: Since last report the contractors have sunk the vertical shaft 19 feet, making it a total depth of 890 feet 6 inches. At 874 feet we passed through a formation containing three leaders showing very fair gold and about 4 feet wide. Since then we have been sinking in rather hard formation. Distance below the timber is 68 feet. Barrett and party tributors have about 90 tons of stone broken and intend to start crushing early next week. Brunskill and party have about 70 tons of stone broken, and Fox and party have about 36 tons.

SOUTH-EAST MYSORE.—Fortnightly report of Captain M. Scantlebury, mine agent, dated August 21: Beresford's shaft. This shaft has been sunk 7 feet 6 inches, now 227 feet from surface. The lode is 2 feet 6 inches wide, composed of quartz and a little arsenical and iron pyrites, and varied in value from 6 dwts. to 1 ounce 12 dwts of gold to the ton. 200 feet level north has been extended 14 feet 6 inches, now 118 feet from shaft. The lode is 4 feet wide, composed chiefly of dark blue quartz. The samples during the past two weeks have been rather low, varying from 2 dwts. to 8 dwts. of gold to the ton. Rise above the 200 feet level south has been put up 12 feet, now 24 feet above the level. The lode is 2 feet 6 inches wide, composed of quartz and arsenical pyrites. The samples here also are low during the past two weeks, varying from 2 to 15 dwts. of gold to the ton.—New shaft north of Beresford's. This has been deepened 32 feet, now 60 feet from surface. The shaft is not being carried down its full size consequently is not timbered. We require all the timber we can get sawn for the stamps for the moment, but the timbering of this shaft will be commenced in a few days.—Pigott's shaft. The crosscut east at the 180 feet level has been advanced 4 feet, now 39 feet 6 inches from shaft. There is no change; we are still in the hard bar of ground and occasionally see a stringer of quartz.—Surface. The erection of stamps is proceded with, The boiler is in position and the boxes. The loading for engine is commenced.

TRANSVAAL GOLD EXPLORATION AND LAND.—Erection of new Plant. Extracted from general manager's advices dated August 11.—Turbine. This has been completed, and the connections with the head tank made.—Electric plant. Work was being continued on the foundations for the generator and motor dynamos. The electric transmission cable had arrived, and the cable poles were being delivered.—20 stamp battery, Kameel's creek. Work was being energetically carried on, and the erection of the stamps was well forward.—Ground and aerial tramways. The laying out of the terminal stations had been begun.—New cyanide plant. It has been decided to put down a cyanide plant at the new battery site, and the plans and specifications have been prepared. Tenders for the wood work were being obtained.

VICTORIA AND QUEEN.—Copy of manager's report for fortnight ending July 24: Jevons and party have driven No. 2 crosscut a further distance of 15 feet, making the total from shaft 27 feet. The reef at present is 14 inches of good mineral stone. The reef in the stopes above No. 2 east level averages 6 to 10 inches fair quality stone. Gillis and party have driven the No. 1 level west a further distance of 16 feet, total from slide 59 feet, the reef averages about 14 inches, and the stone appears to be of better quality than last reported on. We have still two men stoping at the back of No. 1 level on about 8 inches of fair quality stone. Eastern drive on Craven's Caledonian reef in our mine at 600 feet level carries in the face about 1 foot of heavy mineralised stone. We have hauled during the fortnight 30 tons, making total at grass 92 tons.

VICTORY (Charters Towers).—Copy of mining manager's report for fortnight ending July 28: No. 1 shaft. No. 11 north level driven 12 feet and 4 feet of footwall shot up for a distance of 44 feet. Will start breaking stone here Monday next. Winze on Papuan reef sunk 8 feet, total 43 feet; reef in bottom 5 inches, quality good. Drive from Papuan Company's lease extended 9 feet, total 108 feet; reef in face 8 inches, and looking better. Raised from Papuan shaft 6 tons, making 16 tons in the paddock. Raised from No. 1 shaft 5 tons. Most of the men have been employed for this fortnight in No. 11 north level.—No. 2 shaft. Underlie sunk 18 feet, total 352 feet; face shows 2 feet poor stone. Started a drive (No. 7) 100 feet below No. 6. It has been driven 13 feet; carries no stone at present, but will shortly, as we are stoping from underlie above on 18 inches of stone. No. 6 level driven 7 feet, total 91 feet; carries 9 inches poor quality. Stopes above 6 to 30 inches medium. No. 5 level driven 14 feet, total 224 feet; no reef here. Stoping above 6 to 30 inches medium quality. Crossdrive in No. 4 east driven 7 feet, total from level 210 feet, driving in formation here the last few feet, and have met with small patches of white stone. Crossdrive in No. 3 west driven 10 feet, total 67 feet; carries 4 to 6 inches white stone. Getting some very fair stone from rise in No. 3 east; it is from 6 to 18 inches in thickness, and width of shoot about 30 feet. This rise is up 36 feet from level. Work was stopped here some time ago, as it was too hot to work, but fairly well ventilated now. In No. 1 west there is no change; the stone here is of fair quality but small. No. 1 A west driven 10 feet, total 65 feet, or 158 feet from shaft; reef has varied from 3 to 20 inches. At present face shows 9 inches fair quality. Raised 310 tons.—Clarke's shaft. Drive from this shaft extended 24 feet. Have just cut formation here.

WENTWORTH EXTENSION.—Report dated August 4: Prospecting shaft No. 4 sunk to the depth of 103 feet; at 100 feet a drive is being put in to the westward, from which rises will be made to the alluvial wash 20 feet above.—Main shaft. West crosscut advanced 5 feet, total length 159 feet; diorite without change.

THE gold returns of Queensland for the six months ended June 30 show an increase of nearly 3000 ounces over the last six months of 1893, the total—reef and alluvial—being 296,125 ounces. Charters Towers has almost half the total production, her output being 118,594 ounces from about 115,000 tons. Gympie, with 53,022 ounces, just beats the Rockhampton fields by about 200 ounces for second place, and nothing is more cheering in connection with Queensland mining than the improvement in the great Southern gold field. Mount Morgan is doing well, and the half year only shows a decline of about 3500 ounces. The June return was 10,000 ounces, and, if this be maintained, the Rockhampton fields will again climb into second place. Croydon, with 30,079 ounces, shows a falling off of 3000 ounces, but there are signs that the deficit will be regained before the end of the year. The fifth on the list is the Etheridge field, with 11,012 ounces for the six months, about 1000 ounces less than the preceding half-year. Ravenswood comes next with 7059 ounces, an increase of 2000 ounces, and then the Gladstone fields, which produced 4258 ounces. The Herberton fields, which include the Russell and Mareeba, produced 3392 ounces, and the Palmer output was 3016 ounces. As the Anglo-Saxon P.C. is to be actively worked there should be an expansion in production in that once famous district. Clermont, which is almost purely alluvial, turned out 2570 ounces, and Eidsvold, the disappointing, is next with 2307 ounces. Then come the Cooktown fields 1757 ounces, Cloncurry 1389 ounces, Paradise 1307 ounces, Warwick fields 1214 ounces, the Hodgkinson 1095 ounces, Mackay 887 ounces, Bowen 191 ounces, and Tenningering 128 ounces. The amount of alluvial gold obtained was small—only 8220 ounces for the half-year, Clermont contributing 2570 ounces of this. Cooktown, the Russell, and Ravenswood, are the chief northern alluvial fields. The alluvial gold from the Cape is not credited, and it can safely be held that the Government returns do not show the full quantity obtained. It is evident from the foregoing that the gold mining industry is sound, says the *North Queensland Register*. It would be fortunate for the colony if other industries were in the same happy position.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

MR. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of September 13 (4 o'clock) as follows:—We have had a dull, lifeless market this week. There is practically nothing doing to-day. Prices are a little easier. Following are quotations:—Blue Hills, ⅜ to ½; Carn Brea, 7 to 7⅛; Cook's Kitchen, ⅛ to ⅜; Dolcoath, 70⅛ to 71⅛; East Pool, 8⅞ to 9⅛; Killifreth, 2-17 to 2-19; South Condurrow, ⅛ to ¾; South Crofty, 1⅜ to 1⅝; South Wheal Frances, ¾ to 1; Tincroft, 11⅛ to 12; West Frances, 1⅞ to 2; West Kitty, 7 to 7⅛; Wheal Agar, 1 to 1⅛; Wheal Basset, 1 to 1⅛; Wheal Grenville, 18 to 19; Wheal Kitty (St. Agnes), ⅜ to ¾; Polberro, 1⅛ to 1½.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (September 13) as follows:—The mining market has been dull throughout the week on the fluctuation of tin, and prices on the whole are easier; business to-day mostly confined to settlement. Closing prices:—Blue Hills, 7s. 6d. to 8s. 6d.; Carn Brea, 7 to 7⅛; Cook's Kitchen, ⅜ to ½; Devon Consols, 1 to 1⅛; Dolcoath, 69⅛ to 70; East Pool, 8⅞ to 9; Killifreth, 56s. to 57s. 6d.; Levant, 6⅛ to 6½; Phœnix United, ⅛ to ⅜; Polberro, 1⅛ to 1⅛; South Crofty, 1⅜ to 1⅝; South Frances, 1 to 1⅛; Tincroft, 12 to 12⅛; West Frances, 2 to 2⅛; West Kitty, 6⅞ to 6⅞; Wheal Agar, 2⅛ to 2⅜; Wheal Basset, 1⅛ to 1⅜; Wheal Friendly, 1s. 6d. to 2s. 6d.; Wheal Grenville, 18⅛ to 18½; Wheal Kitty, 15s. to 16s. 6d.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers, and Mining Share Dealers, Redruth, write under date of Thursday, September 13:—A very dull week in the Mining Market, with very few transactions. Quotations herewith (4 o'clock):—Blue Hills, ⅜ to ½; Carn Brea, 6⅞ to 7⅛; Cook's Kitchen, ⅛ to ⅜; Dolcoath, 70 to 72; East Pool, 8⅞ to 9⅛; Killifreth, 57s. to 59s.; Polberro, 1⅛ to 1⅜; South Condurrow, ⅛ to ¾; South Crofty, 1⅛ to 1⅛; South Frances, ¾ to 1; Tincroft, 11⅜ to 12⅛; West Frances, 1⅛ to 2; West Kitty, 6⅞ to 7; Wheal Agar, 2 to 2⅛; Wheal Basset, 1 to 1⅛; Wheal Grenville, 18 to 19; Wheal Kitty, ⅜ to ½. Tin, 71⅛.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write September 13, 1894 (noon): The fortnightly settlement has occurred in the week under notice (nominally concludes to-day), and one of the features, if not the feature, in the market has been the firmness exhibited in most departments on the eve of the account, a time when under normal conditions prices usually ease off on closing in face of contangoes. The elements of strength are more particularly noticeable in the second rank of investment stocks other than railway ordinaries, although home rails show a goodly majority of advances, whilst other railway markets are irregular. The movements in home rails are as follows, viz., higher: Lancashire and Yorkshire, 1⅛ to 1¼; Sheffield Deferred, ¾ to 1; Brighton A, ¾; South Eastern A, ¼; North British New Ordinary, ⅜; and Great Eastern, ⅛. Lower: Berwicks, ⅛; Metropolitan District and Midland, ⅛ each; and Great Western, ⅛. Canadians have fallen away all round, but it is only in Trunk issues that the decline is of moment; Trunk Guaranteed is 1⅛; First and Second Preference, ⅞ each; Third Preference, ⅛ to ¼; Ordinary, 1-16 to ⅛, and Pacifics $⅛ down. In Americans business has been quieter, and though irregular, show advances decidedly in majority both as regards amount and number of changes. Central Pacifics have been in good demand, even whilst others have been dull. They show a rise on the week of $2. The next highest advance is in Denver Preference, which is ⅛ to ¾ up, and the rest of the changes are as follows:—Higher: Louisvilles, $⅜; New York Central, $⅛; Readings, $⅛; Atchison Incomes, $¼; ditto Ordinary, $⅛ to $¼.—Lower: Ohio First, $⅛; Eries, ⅛; and Denver Ordinary, Ontarios, and Union Pacifics, $⅛ each. Mexican Rails are but little changed, the only alterations being ⅛ each in First Preference and Ordinary, the first-named down, and the latter up. Consols give no alteration on balance for the week. Colonial Bonds and Corporation stocks both show advances in all cases where any change in quotations is made, the former quoting a number of improved prices, whilst the latter are but little changed.—Higher: Queensland Inscribed, 2; South Australian Registered, 1⅛; Natal Inscribed, 1 to 2; and Canada Registered, Cape of Good Hope Registered, New South Wales Inscribed, New Zealand Inscribed, and Victoria Inscribed ⅛ each. In home corporation stocks Bradford Four per Cent. is ⅜ to 1⅛ and Manchester Four per Cent. ⅛ higher. Foreigners present a long list of better prices without any of an adverse nature.—Higher: Uruguay Three and a Half per Cent., 1⅛; Brazilian Four and a Half per Cent., 1 to 2; Brazilian Four per Cent., 1; Russian Four per Cent., 1; Argentine Five per Cent., 1; Argentine Six per Cent., ⅜; Italian Rentes, 1⅛; Spanish Four per Cent., ⅛; Egypt Unified, ⅛; Mexican Six per Cent., ⅛; Portuguese Three per Cent., ⅛; and Turkish issues, ⅛ to ⅜. The Miscellaneous markets have not furnished more than a moderate number of dealings, and there is rather more irregularity in the course of prices than has been obtained during the few weeks recently past. There is still, however, viewing the classes all round, a majority of cases wherein improved prices are to be noted.

BANKS.—With the exception of Districts, in which dealings have been well repeated (at steady figures) and to a less extent, Consolidated, the transactions are straggling, and reach rather a poor total. Higher: Paris, ⅛ to ⅜, Imperial Ottoman ⅜, Lancashire and Yorkshire ⅛, and London and Midland ⅛. Lower: Imperial of Persia ⅛.

INSURANCE.—Very little doing, and variations in quotations contradictory. Higher: London and Lancashire ⅛ to ⅜, Thames and Mersey 3-16, Liverpool and London and Globe ⅛, Manchester Fire 5-16, and Palatine 1-16. Lower: British and Foreign 3-16, National Boiler 1-16 to 3-16, Lancashire 1-16 to ⅛, and Royal ⅛.

COAL, IRON, &C.—Business very slow, but prices still on the mend where changed at all. Higher: Bolckows ordinary fully paid ⅛ ditto £12 paid ⅛ to ⅜, John Browns ⅛, Darlington Iron ⅛, and Rhymney Iron New 6d.

COTTON, SPINNING, &C.—Whilst very little business is in progress there seems a continuance of the disposition (named last week) to pick up lots offering at very low prices.

MINES.—Just a little doing in Tintos, and this with a trifling business in Dariens or Mysores.—Higher: Tintos ⅛, Darien A, ⅛ to ¼, and Consolidated Gold Fields 1-16.—Lower: De Beers ⅛, and Masons ⅛.

TELEGRAPHS.—Anglo-American Deferred provide the only decline, and that only ⅛, whereas there are a number of improved prices—viz., Anglo Preference 1, Western and Brazilian ⅛, Direct United States Cable ⅛, Eastern ⅛, and West India and Panama ⅛.

BREWERIES.—Some fair movements have occurred in this class. Allsopps, as usual, for some time past being the feature. Exigencies of account have forced these up to 114 (for ordinary), but, after easing from this price, they maintain a rise of 2⅛ on balance for the week. Guinness's are 2 to 3 lower, other changes as follows:—Higher: Clarksons ⅛ to 1, Manchester ⅛, Boddingtons ⅛, and Hardy's ⅛.

MISCELLANEOUS.—The changes herein save for a drop of ⅛ in Gas Light and Coke A, ⅜ to ⅝ in Manchester Carriages B, and 1 in Union Plate Glass are few and of small importance. Suez Canal mark rise of 1, and Ship Canal Ordinary have come into request a bit, quoting ⅛ better on the week.

LATER (4 P.M.).—In Home Rails London and North-Western have come into special request and are 1⅛ up. Scotch stocks, too, have mended, the North British dividend announcement giving ⅛ per cent to the deferred being rather in excess of some anticipations. Very little doing in Canadians and Americans, but prices are held up, and here and there better figures are recorded. Mexicans somewhat lower. Coal and iron shares show a quiet demand. Ship Canals rather stronger on both issues, but Ordinary show most doing.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (September 13), writes:—During the past week there has been less business doing, and prices are in some cases easier on realisations. The Board of Trade returns for August were disappointing, but it is expected that trade will soon get better. The easy state of the money market, and the upward tendency of the metal markets, are both in favour of better business in the share department. The fortnightly settlement has to-day been concluded, and transactions now entered into are for new amount, September 28.

In shares of coal, iron and steel companies, prices are generally better. Wilson's and Clyde shares improved to 12, but have since come back to 11. This company is opening a new field in Fifeshire, and in connection with it is raising additional capital by issuing, *pro rata*, 20,000 additional shares of £3 each at par. Bolckow Vaughan are not paying any interim dividend, (although they have a credit balance at profit and loss), till the result of the year's operations is known. The meeting of the Steel Company of Scotland was encouraging. It appears they have a good number of orders, though at low prices. If the coal strike is soon arranged they hope to wipe off the adverse balance. Ebbw Vale are at 9, Marbella Iron 66s. 3d., Niddrie 40s., Rhymney Iron (New), 16s. 6d., Stewart and Clydesdale 8, Teeside Iron (Preference) 8s. 9d.

In shares of copper concerns there has not been much business doing. Tharsis declined to 93s. 6d., and Tinto to 14½, but have recovered to 95s. and 15½ respectively. Arizona are at 9s. 6d.

In shares of gold and silver mines prices have improved, especially for Africans and West Australians. Montana improved from 14s. 1½d. to 15s. 1½d., but are now 14s. 9d. Last month's output was $74,900, and expenses $47,760. The yields last month from the Rand and Indian mines have been very satisfactory, showing good increases. Victoria and Altamira First Preference shares offered. Nouveau Monde wanted. African Gold Recovery are at 28s. 6d.; Broken Hill Proprietary, 60s.; Balaghat, 7s. 6d.; Blue Spur, 2s.; British Broken Hill, 5s.; Cassel, 14s. 6d.; Caratal, 10d.; Excelsior Estates, 2s. 6d.; Day Dawn P.C., 4s.; Great Boulder, 1s. prem.; Golconda, 18s. 9d. to 20s.; Golden Gate (Cal.), 5s. 6d.; Golden Leaf, 5s.; Idaho, 2s. 3d.; Macate, 2s. 9d.; Otto's Kopje, 2s. 6d.; Piggs Peak, 3s. 6d.; Premier, 3s. 6d. to 4s. 6d.; Sheba, 28s. 9d.; St. John del Rey, 30s.; Tolima A, 8¾ to 9¼; and Victoria C.T., 11s.

In shares of Miscellaneous companies there has not been much business doing, but prices are steady. In oil companies the only quotations are Pumpherston 5¾, and Young's 20s. Lawes' Chemical are at 7½ to 8; Nobel's Explosives, 14¼; and Roburite Explosives 27s. 6 d. to 32s. 6d.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of September 13:—The railway markets have been steady, Caledonians and Highland stocks being exceptions. Caledonian Deferred have risen from 41 3-16 to 41½. The allotment letters New Ordinary stock of that company are at a premium of 2⅜ to 3 on the price of issue. North British at 38⅜ shows a rise of ⅛; Canadians lower. In Banks, British Linen have receded from 387 to 386½, Royal from 233½ to 230. Clydesdale have advanced from 19 to 19½, National from 338 to 339, Union from 22¼ to 22½. In Insurance shares Alliance has fallen ¼; North British and Mercantile has risen from 38½ to 39 3-16, Scottish Union B from 16 1-16 to 16 5-16. Investors Mortgage Security shares have risen from 28s. 6d. to 30s., Second Scottish Investment Trust Deferred from 30 to 35. Marbella shares have improved from 62s. 9d. to 66s. 3d. Arizona Copper Debentures have advanced from 50 to 59. Oils unchanged. Highland Distilleries 1s. 3d. higher at 6 13-16. Coats 10s. lower at 17⅜.

ALBERNI GOLD FIELDS.—The Alberni gold fields are at present attracting much attention through the fact that development work is being done to a considerable extent. On China Creek hydraulic mining will soon be in operation. W. H. Bainbridge got back recently to Victoria from China Creek, where he has been surveying for a road into the hydraulic claims in which he and several other gentlemen are interested. Tenders for the road are to be called for very soon, and as soon as that is completed, lumber for the flumes will be hauled in, and in two months time the mines will be in operation. These claims extend a mile and a half along the creek, and as careful prospecting has shown it is pay dirt from the grass roots down. Within an area half a mile from the creek the mines are bound to pay well. Half a mile of flume will supply a splendid head of water and in unlimited quantity. Speaking of quartz mining, Mr. Bainbridge says that the face for a tunnel on the King Solomon is just about finished, and the vein is showing up wonderfully well. He brought back a fine sample of coarse gold taken out of one of the new placer finds on Granite Creek, a small off-shoot of Hiawatches Creek, which is somewhat limited, has been taken up since the first find there a few weeks ago. Hansen and his partners, the discoverers of the first find there, are putting in sluice boxes.—*Vancouver World.*

THE British South African Company have received information by cable that Mr. Hammond, the company's consulting engineer, has reported favourably on various properties which he has specially examined in Matabeleland. Mr. Hammond is of opinion that the general reef formation is true fissure vein, which will not pinch out. Particulars are awaited. Mr. Hammond has now proceeded to Mashonaland.

TIN TICKETING.

A TICKETING for tin ores was held at Redruth, on Tuesday with the following result:—

VALUES OF ORES SOLD BY EACH MINE.

	Tons cwts.	Per ton.	Value.
Carn Brea No. 1	13 0	£38 10 0	£500 10 0
do No. 1a	13 0	38 12 6	502 2 6
do No. 1b	12 0	38 12 6	463 10 0
do No. 2	2 0	28 10 0	57 0 0
do No. 3	3 0	20 17 6	62 12 6
Dolcoath No. 1	14 0	43 12 6	610 15 0
do No. 1a	14 0	43 17 6	614 5 0
do No. 1b	12 0	44 2 6	529 10 0
Tincroft	14 0	36 0 0	504 0 0
do	15 0	36 5 0	543 15 0
do	3 0	28 12 6	85 7 6
East Pool No. 1	18 10	38 2 6	705 6 3
do No. 2	2 0	20 10 0	41 0 0
Wheal Basset	18 0	45 0 0	810 0 0
Cook's Kitchen	18 0	43 12 6	785 5 0
Phœnix United No. 1	14 0	42 5 0	591 10 0
do No. 2	2 0	33 0 0	66 0 0
West Frances	15 0	42 0 0	630 0 0
Killifreth	15 0	41 15 0	626 5 0
South Frances United	12 0	42 2 6	505 10 0
West Kitty	12 0	45 5 0	543 0 0
Wheal Agar	10 0	37 2 6	371 5 0
South Condurrow	8 0	44 12 6	357 0 0
Wheal Kitty	4 10	42 2 6	198 11 3
	264 0		£10,704 10 0

Average price per ton £40 10s. 11d.

AVERAGE PRICES PER TON.

June 5	£40 0 4	July 17	£38 4 11
June 19	39 5 6	August 24	38 0 8
July 3	38 13 9	August 28	39 17 11
July 10	37 5 4	Sept. 11	40 10 11

MINING IN THE STATE OF PERAK.

PROGRESS IN THE YEAR 1893.

WE glean the following particulars of mining in the State of Perak during the year 1893, from the annual report furnished by Mr. F. A. Swettenham, C.M.G.:—

The tin and tin ore exported from the State during the year amounted to 316,201 pikuls, or 18,821 tons, against 278,254 pikuls in 1892. Of this quantity the Kinta district produced 230,725 pikuls, Larut coming next with 69,892 pikuls.

The highest export for any one month was 32,301 pikuls in July, and the lowest 20,253, in March. The average price of tin for the year was $37·60 per pikul—that is, about £75 a ton, and by the end of the year it had fallen to about £65. The price which ruled in 1892 was £90 a ton. It is curious that while the highest average local price recorded for one month—$39 85—was in March, when the production was least, the lowest—$36·13—was in June, the next month to that of the greatest output of tin.

The Government prospectors did a great deal of valuable work during the year, especially in the Kuala Kangsar district, but there is little doubt that immense tracts of payable land have never yet been touched. Of lode mining for tin, practically nothing was done, but the gold mine at Bukit Mas, in the Batang Padang district, has been further opened up, with the most encouraging results, and though yet in its infancy, is making a steady yield of metal more than sufficient to pay all expenses.

For the moment Kinta is the centre of mining enterprise, and I cannot do better than quote the following paragraphs from the able report of the district magistrate (Mr. J. B. M. Leech). The advancement of this district is almost incredible. Ten years ago it was little more than a vast stretch of jungle, unapproachable except by a shallow and rapid river, and possessing not a single mile of first-class cart-road, nor a village of any importance:—

"During the year 240 titles for 4492 acres of mining land were issued; 234 of these were new leases, and the remaining six agreements for leases. 57 leases for 822 acres of agricultural land were also issued, while at the end of the year there were in the Land office, ready for issue, 106 mining leases for 2015 acres, two suburban and 31 agricultural leases for 84 acres, and there were 859 mining leases for 15,847 acres, and 593 agricultural and suburban leases for 2958 acres of land in various states of preparation. There remained besides, 1655 applications for 29,143 acres of land registered in the books, but still unattended to, while fresh applications keep pouring in every day. Considering the small staff, the amount of work done is very creditable, but an immense amount more could have been got through, and the land revenue could have been greatly increased, if a sufficient number of demarcation and settlement offices had been allowed. * * * "With reference to the titles in course of preparation, it is right to notice that though there is considerable delay in issuing them, owing to the weakness of the demarcation staff, this does not prevent the land being worked, as directly the lines are cut round a block, and the boundary stones put in, permission is given to the applicant to work, although the title may not issue for months after.

"There were several successful land sales during the year. Some 296 acres of mining land in different parts of the district were sold by auction, and the average price obtained was $21·90 an acre. 36 acres of suburban land at Ipoh sold for $3401 or $93·08 an acre, while 10 town lots at Ipoh fetched $288 a lot, and 5 town lots at Batu Gajah brought $179·20 a lot.

"With reference to the mining itself, there has been little change, except in the case in the new system of hydraulic mining introduced by Messrs. Pike and Osborne, at Gopeng. But in the terms on which the Chinese mining coolies work there has been a very important (though a gradual) alteration, which is worthy of notice.

"Formerly the coolies were nearly all employed on what was really the truck system. They were engaged for terms of six or twelve months, either as contract coolies employed in stripping, as wages coolies employed in raising ore, or as co-operative coolies who shared in the profits of the mine. In either case they worked for a long term, generally a year, and were only paid once every six months, when the books were made up, wages paid, and profits divided. In the meantime, the coolies had to depend entirely for their subsistence on advances made by their employers, the advances frequently amounting to large sums, and a single coolie often owed his employer over $100. It was to protect the advances under this system that the Perak Labour Regulations and the system of discharge tickets were introduced. The system has, however, gradually changed, partly owing to the free sale of tin ore, which became common when the Straits Trading Company began to ship ore and smelt at Singapore (which did away with the old half yearly smeltings), and partly owing to the great increase in surface workings in Kinta, which occurred with the introduction of the short wash box (*lanchut kechil*), which is now used in most mines. In the surface workings the returns are immediate, and the coolies declined to wait six months for a settlement. They insisted on being paid at short intervals, and if the towkay refused they ran away in hundreds, leaving nothing but debts behind them. Under such a strain the labour regulations and discharge ticket system proved useless as a check. The demand for coolies was so great that no employer took much trouble to find out whether a coolie who asked for work had a discharge ticket or not, and runaway coolies were taken on wholesale. Under these changed conditions, giving large advances meant ruin to the employers, and the towkays wisely reduced the amounts advanced, and now an advance to a coolie of more than $3 or $4 is rarely heard of, while in some cases the coolie on joining a new kongsi gets nothing but a few days' rice to keep him going till he has earned enough to buy anything else he wants. Indeed, I would not be surprised if in time a small food ration will be the only form of advance known in the district.

"As a natural result of this change, the present labour regulations (embodying, as they do, the discharge ticket system) having ceased to be a protection to the employers of labour, sank into a useless formality, and in some cases a cause of annoyance to the towkays; and when the Protector of Chinese and I were appointed in August last to enquire into the working of the regulations, they were universally condemned by both the labourers and the employers for whose protection they were originally introduced.

"The rates of wages paid to mining coolies during the year have been very high; they vary from 32 cents to 42 cents a day with a food ration, the food, as a rule, amounting to 15 cents more—this is for daily labourers, while in many mines where the coolies work on the co-operative system, each man frequently makes 70 or 80 cents, or even, in some cases, as high as a dollar a day.

"Of lode mining there has been none in Kinta during 1893. Both the Selama Company and the Menglembu Company have closed their lode works as unprofitable, while none of the other applicants for lode concessions have done anything.

"In conclusion, I must mention the successful introduction of hydraulic mining by the Gopeng Company, who have a concession of 300 acres of hill land at Gopeng. This Company, at a cost of about $50,000, have brought water 6½ miles from the Kampar River to their concession. For 4 miles it is conveyed in 14-inch steel pipes. The land is worked by means of a hydraulic monitor, which washes down the hill at the rate of 400 cubic yards in a day of 24 hours. Working on this method, only some 20 coolies are necessary, and owing to the enormous saving in labour thus effected, the company are getting good interest on their capital, though the ground worked is poor, in many places too poor for Chinese to work. I believe this is the first time this system has ever been applied to tin mining."

WILL TRADE IMPROVE?—So far, everyone admits that 1894 is every whit as bad as 1893. Universal grumbling prevails. But while we hope for better times, let us not forget that we are ourselves in some measure to blame for the trouble. Certainly we should have much less cause for grumbling if we took better care of our health. Nothing unfits one for work so much as illness. Even what we are wont to call minor complaints lead to endless trouble. Happily in Holloway's Pills and Ointment we have the means of effecting a speedy cure for all such troubles, and we should be foolish indeed if we neglected to avail ourselves of them.

TUNGSTEN FOR BULLETS.—"One of the metals upon which hopes may be founded," remarks the 'Revue d'Armes Portatives et de Tir,' "is tungsten. This metal, which is almost as hard as steel, has a density varying from 17 to 19·3, say 1½ times that of lead. By reason of such qualities, balls of tungsten, of equal dimensions, possess a power of penetration much greater than that of lead. Thus, a tungsten ball penetrates a steel plate 3 inches in thickness at a distance of 650 yards, while a similar one of lead penetrates a 2¾ inch plate at 325 yards only. The present obstacle to the use of tungsten is its relatively high price, but there are indications that this will soon be lowered to reasonable figures." Commenting on the metal, the *Engineering and Mining Journal* remarks that "the reduction of the caliber of guns is necessarily accompanied with a diminution in the weight of the projectile. The length of the latter, in fact, cannot exceed a certain limit, beyond which it would no longer have sufficient stability in its trajectory. It would, therefore, be of considerable interest to have at our disposal, for the manufacture of rifle balls, a metal of reasonable price and heavier than lead.'

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Printed for the Registered Proprietors, by JOHN ROBERT GALE, at their Printing Offices, 7, DORSET BUILDINGS, SALISBURY SQUARE, in the Parish of St. Bride's, in the City of London.—*September* 15, 1894.